FORM 3

AMENDED REPORT ☐

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

APPLICATION FOR PERMIT TO DRILL							**1. WELL NAME and NUMBER** NBU 1022-03O3T
2. TYPE OF WORK DRILL NEW WELL (●) REENTER P&A WELL ( ) DEEPEN WELL ( )							**3. FIELD OR WILDCAT** NATURAL BUTTES
4. TYPE OF WELL Gas Well Coalbed Methane Well: NO							**5. UNIT or COMMUNITIZATION AGREEMENT NAME** NATURAL BUTTES
6. NAME OF OPERATOR KERR-MCGEE OIL & GAS ONSHORE, L.P.							**7. OPERATOR PHONE** 720 929-6587
8. ADDRESS OF OPERATOR P.O. Box 173779, Denver, CO, 80217							**9. OPERATOR E-MAIL** mary.mondragon@anadarko.com
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) UTU-01191-A		**11. MINERAL OWNERSHIP** FEDERAL (●) INDIAN ( ) STATE ( ) FEE ( )					**12. SURFACE OWNERSHIP** FEDERAL (●) INDIAN ( ) STATE ( ) FEE ( )
13. NAME OF SURFACE OWNER (if box 12 = 'fee')							**14. SURFACE OWNER PHONE (if box 12 = 'fee')**
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')							**16. SURFACE OWNER E-MAIL (if box 12 = 'fee')**
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')		**18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS** YES (●) (Submit Commingling Application) NO ( )					**19. SLANT** VERTICAL (●) DIRECTIONAL ( ) HORIZONTAL ( )

20. LOCATION OF WELL	**FOOTAGES**	**QTR-QTR**	**SECTION**	**TOWNSHIP**	**RANGE**	**MERIDIAN**
LOCATION AT SURFACE	561 FSL 2042 FEL	SWSE	3	10.0 S	22.0 E	S
Top of Uppermost Producing Zone	561 FSL 2042 FEL	SWSE	3	10.0 S	22.0 E	S
At Total Depth	561 FSL 2042 FEL	SWSE	3	10.0 S	22.0 E	S

21. COUNTY UINTAH	**22. DISTANCE TO NEAREST LEASE LINE (Feet)** 561	**23. NUMBER OF ACRES IN DRILLING UNIT** 1363
	25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 20	**26. PROPOSED DEPTH** MD: 8800 TVD: 0
27. ELEVATION - GROUND LEVEL 5295	**28. BOND NUMBER** WYB-000291	**29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE** Permit #43-8496

ATTACHMENTS

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORCANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES

☑ **WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER**	☑ **COMPLETE DRILLING PLAN**
☐ **AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)**	☐ **FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER**
☐ **DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)**	☑ **TOPOGRAPHICAL MAP**

NAME Raleen White	**TITLE** Sr. Regulatory Analyst	**PHONE** 720 929-6666
SIGNATURE	**DATE** 12/22/2008	**EMAIL** raleen.white@anadarko.com

API NUMBER ASSIGNED 43047501680000	**APPROVAL**  Permit Manager

Proposed Hole, Casing, and Cement						
String	**Hole Size**	**Casing Size**	**Top (MD)**	**Bottom (MD)**		
Surf	12.25	9.625	0	2200		
Pipe	**Grade**	**Length**	**Weight**			
	Grade J-55 LT&C	2200	36.0			
	Cement Interval	**Top (MD)**	**Bottom (MD)**			
		0	2200			
		Cement Description	**Class**	**Sacks**	**Yield**	**Weight**
			Premium Foamed Cement	315	1.18	15.6

Proposed Hole, Casing, and Cement						
String	**Hole Size**	**Casing Size**	**Top (MD)**	**Bottom (MD)**		
Prod	7.875	4.5	0	8800		
Pipe	**Grade**	**Length**	**Weight**			
	Grade I-80 LT&C	8800	11.6			
	Cement Interval	**Top (MD)**	**Bottom (MD)**			
		0	8800			
		Cement Description	**Class**	**Sacks**	**Yield**	**Weight**
			Premium Lite High Strength	430	3.38	11.8
			50/50 Poz	1370	1.31	14.3

Kerr-McGee Oil & Gas Onshore LP
NBU #1022-03O3T
SECTION 3, T10S, R22E, S.L.B.&M.

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 14.0 MILES TO THE JUNCTION OF STATE HIGHWAY 88; EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 17.0 MILES TO OURAY, UTAH; PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 11.2 MILES ON THE SEEP RIDGE ROAD TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN LEFT AND PROCEED IN AN EASTERLY, THEN SOUTHEASTERLY DIRECTION APPROXIMATELY 8.9 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHEAST; TURN LEFT AND PROCEED IN AN NORTHEASTERLY DIRECTION APPROXIMATELY 3.9 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTH; TURN LEFT AND PROCEED IN A NORTHERLY DIRECTION APPROXIMATELY 0.8 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN RIGHT AND PROCEED IN AN EASTERLY DIRECTION APPROXIMATELY 0.6 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHEAST; TURN RIGHT AND PROCEED IN A SOUTHEASTERLY, THEN SOUTHWESTERLY DIRECTION APPROXIMATELY 0.2 MILES TO THE EXISTING WELL #290 AND THE PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 56.6 MILES.

Kerr McGee Oil & Gas Onshore LP

NBU #1022-03O3T

LOCATED IN UINTAH COUNTY, UTAH
SECTION 3, T10S, R22E, S.L.B.&M.

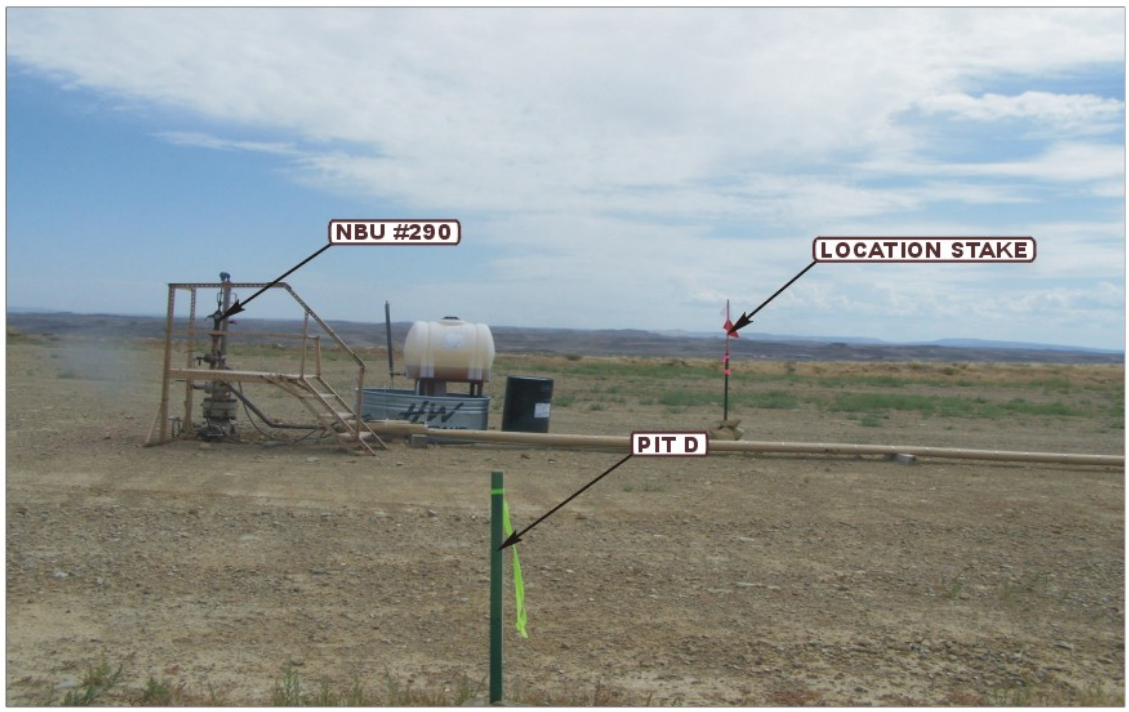


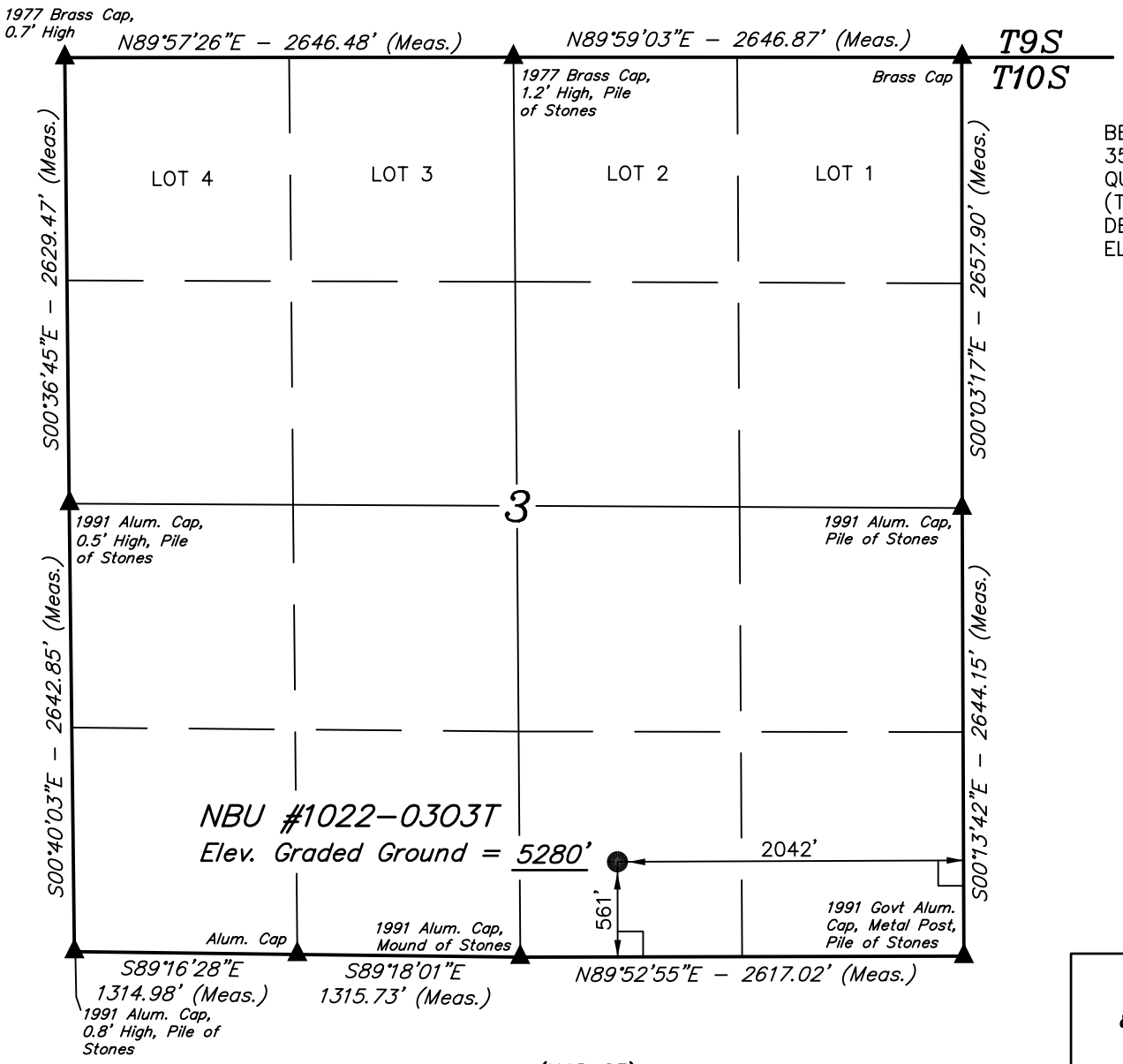
PHOTO: VIEW FROM PIT D TO LOCATION STAKE — CAMERA ANGLE: EASTERLY

PHOTO: VIEW OF EXISTING ACCESS — CAMERA ANGLE: SOUTHERLY

- Since 1964 -
Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

LOCATION PHOTOS	08 MONTH	18 DAY	08 YEAR	PHOTO
TAKEN BY: L.K.	DRAWN BY: J.J.	REVISED: 00-00-00		

T10S, R22E, S.L.B.&M.



LEGEND:

└ = 90° SYMBOL

● = PROPOSED WELL HEAD.

▲ = SECTION CORNERS LOCATED.

(NAD 83)
LATITUDE = 39°58'20.08" (39.972244)
LONGITUDE = 109°25'26.20" (109.423944)
(NAD 27)
LATITUDE = 39°58'20.20" (39.972278)
LONGITUDE = 109°25'23.74" (109.423261)

Kerr-McGee Oil & Gas Onshore LP

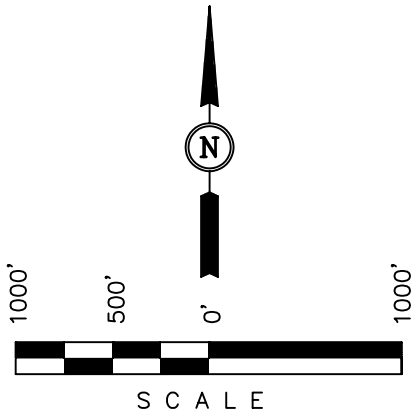
Well location, NBU #1022-0303T, located as Shown in the SW 1/4 SE 1/4 of Section 3, T10S, R22E, S.L.B.&M., Uintah County, Utah.

BASIS OF ELEVATION

BENCH MARK (20EAM) LOCATED IN THE SE 1/4 OF SECTION 35, T8S, R21E, S.L.B.&M. TAKEN FROM THE OURAY SE QUADRANGLE, UTAH, UINTAH COUNTY, 7.5 MINUTE SERIES (TOPOGRAPHICAL MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 4697 FEET.

BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.



SCALE

CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR
REGISTRATION NO. 161319
STATE OF UTAH

UINTAH ENGINEERING & LAND SURVEYING
85 SOUTH 200 EAST - VERNAL, UTAH 84078
(435) 789-1017

SCALE 1" = 1000'	DATE SURVEYED: 08-06-08	DATE DRAWN: 08-20-08
PARTY L.K. D.D. S.L.	REFERENCES G.L.O. PLAT	
WEATHER WARM	FILE Kerr-McGee Oil & Gas Onshore LP	

Kerr-McGee Oil & Gas Onshore LP

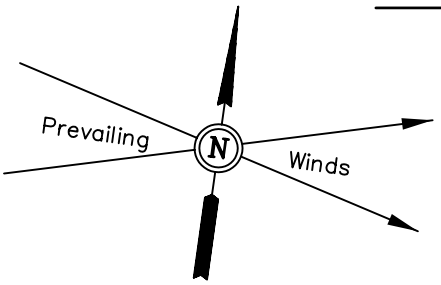
FIGURE #1

LOCATION LAYOUT FOR

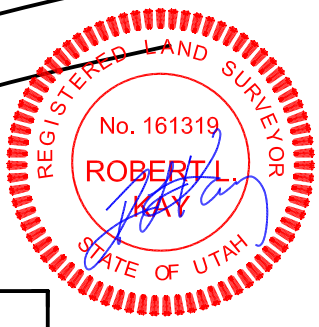
NBU #1022-0303T

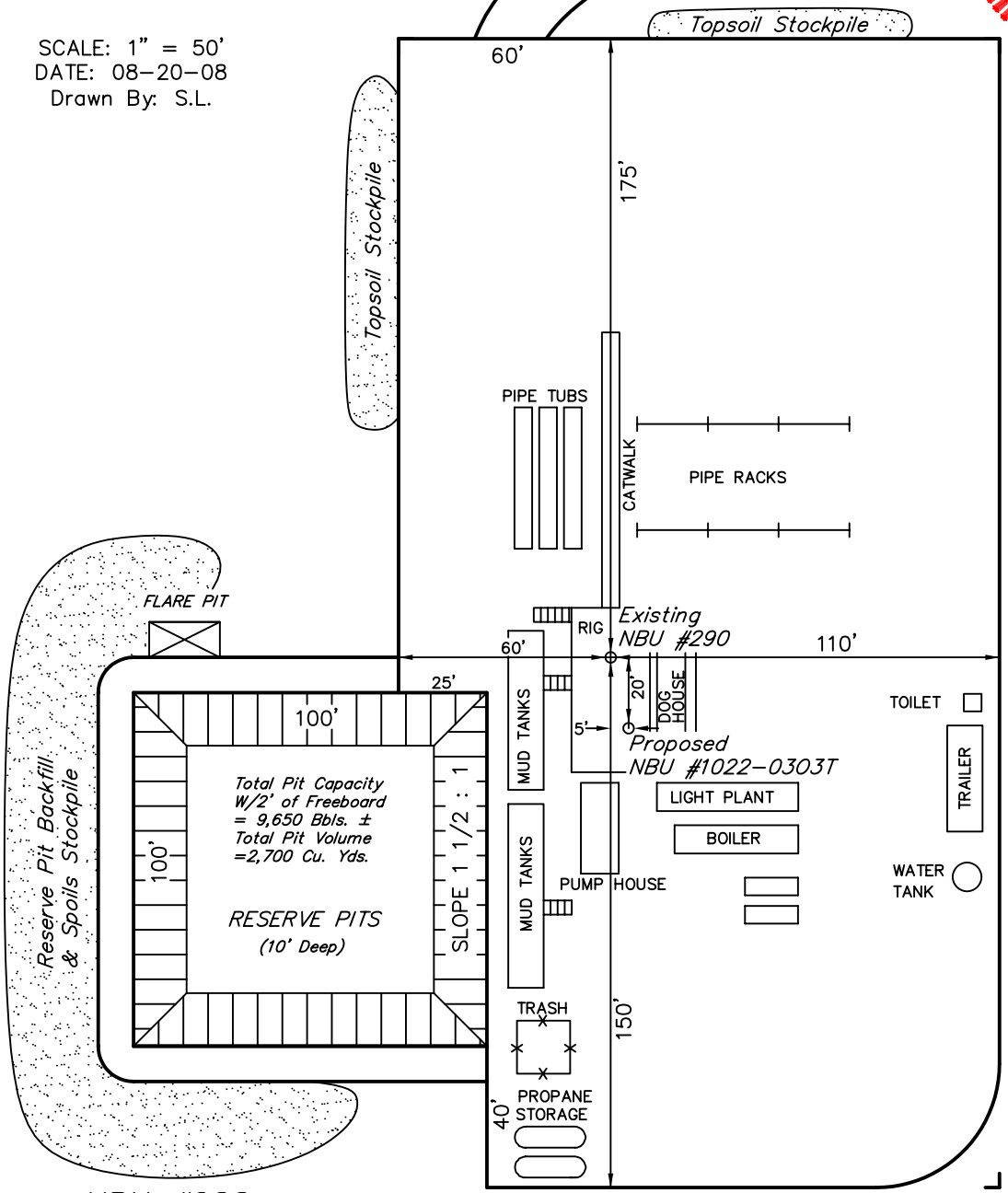
SECTION 3, T10S, R22E, S.L.B.&M.

561' FSL 2042' FEL



SCALE: 1" = 50'
DATE: 08-20-08
Drawn By: S.L.





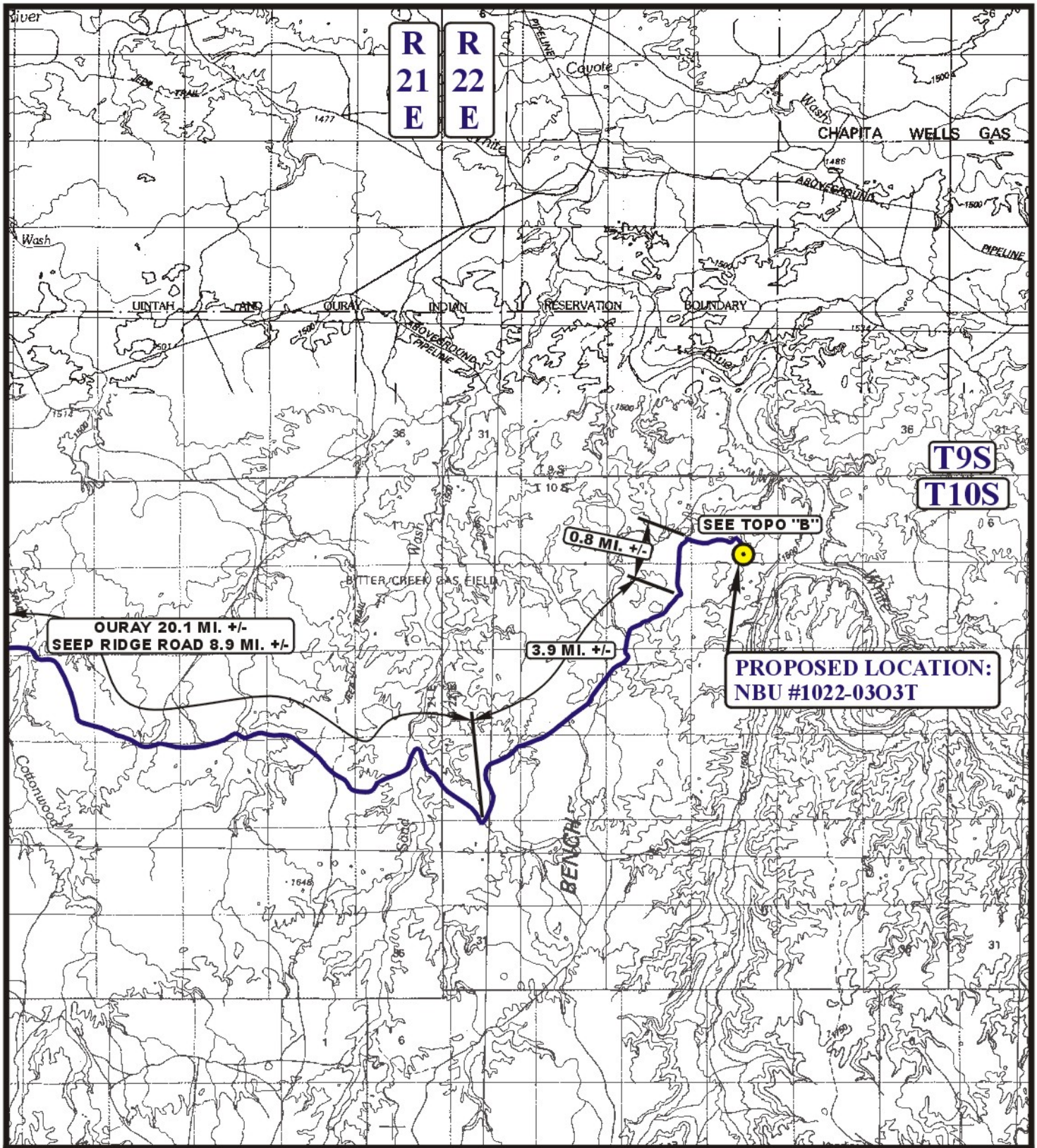
NBU #288

(NAD 83)
LATITUDE = 39°58'20.26" (39.972294)
LONGITUDE = 109°25'26.30" (109.423972)
(NAD 27)
LATITUDE = 39°58'20.38" (39.972328)
LONGITUDE = 109°25'23.84" (109.423289)

NOTES:

FINISHED GRADE ELEV. AT LOC. STAKE = 5280.0'

UINTAH ENGINEERING & LAND SURVEYING
85 So. 200 East * Vernal, Utah 84078 * (435) 789-1017



LEGEND:

PROPOSED LOCATION

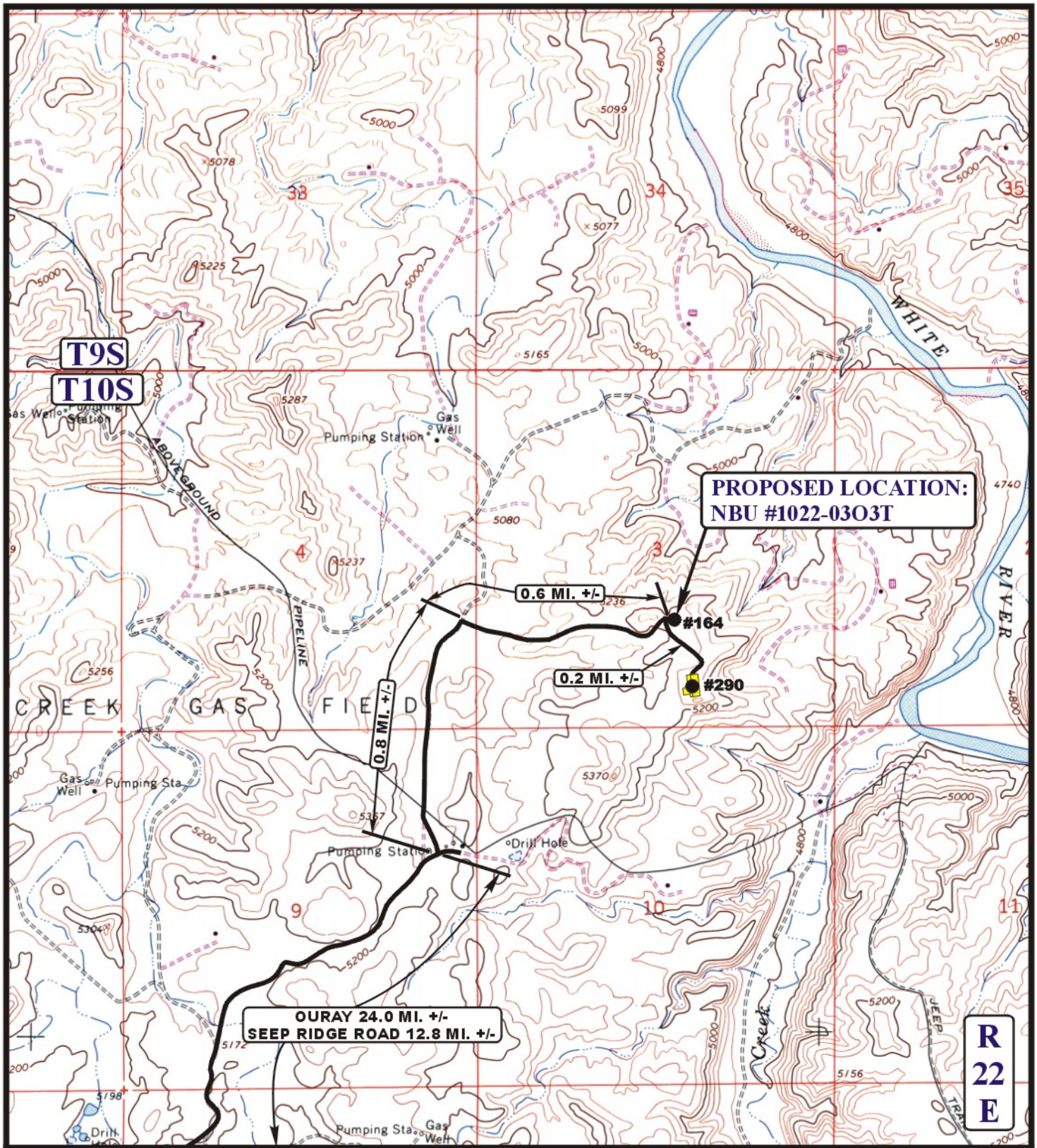
N

Kerr McGee Oil & Gas Onshore LP

NBU #1022-03O3T
SECTION 3, T10S, R22E, S.L.B.&M.
561' FSL 2042' FEL

Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC MAP	08 MONTH	18 DAY	08 YEAR	A TOPO
SCALE: 1:100,000	DRAWN BY: J.J.	REVISED: 00-00-00		



LEGEND:

EXISTING ROAD

PROPOSED ACCESS ROAD

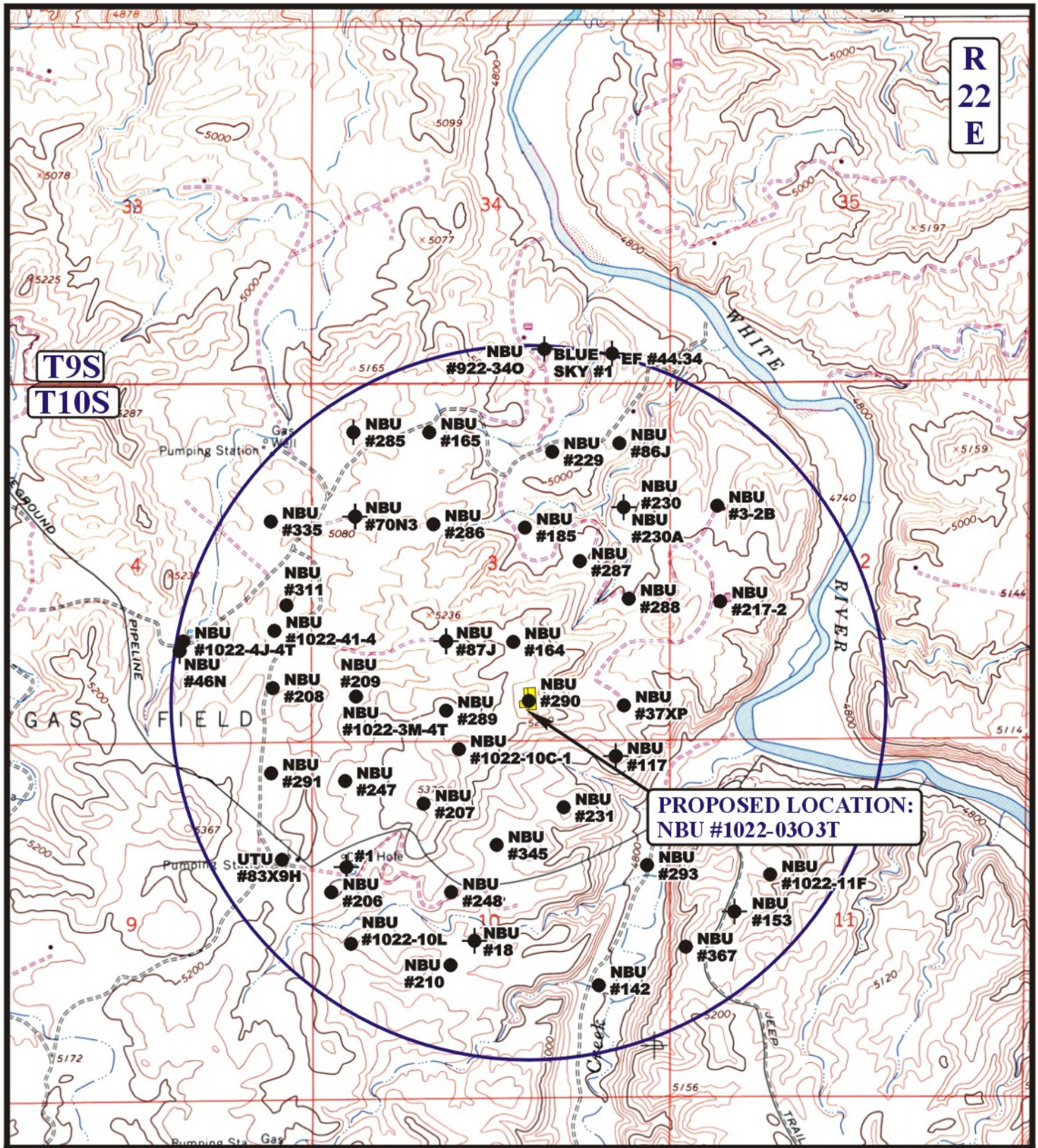
N

Kerr McGee Oil & Gas Onshore LP

NBU #1022-03O3T
SECTION 3, T10S, R22E, S.L.B.&M.
561' FSL 2042' FEL

Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC MAP	08 MONTH	18 DAY	08 YEAR	B TOPO
SCALE: 1" = 2000'	DRAWN BY: J.J.	REVISED: 00-00-00		



LEGEND:

- DISPOSAL WELLS
- PRODUCING WELLS
- SHUT IN WELLS
- WATER WELLS
- ABANDONED WELLS
- TEMPORARILY ABANDONED

N

Kerr McGee Oil & Gas Onshore LP

NBU #1022-03O3T
SECTION 3, T10S, R22E, S.L.B.&M.
651' FSL 2042' FEL

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85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC MAP	08 MONTH	18 DAY	08 YEAR	C TOPO
SCALE: 1" = 2000'	DRAWN BY: J.J.	REVISED: 00-00-00		

NBU 1022-03O3T
NWSW Sec. 3, T10S,R22E
UINTAH COUNTY, UTAH
UTU-01191-A

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. Estimated Tops of Important Geologic Markers:

Formation	Depth
Uinta	0- Surface
Green River	1416'
Bird's Nest	1592'
Mahogany	2084'
Wasatch	4410'
Mesaverde	6731'
MVU2	7698'
MVL1	8280'
TD	8800'

2. Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

Substance	Formation	Depth
	Green River	1416'
	Bird's Nest	1592'
	Mahogany	2084'
Gas	Wasatch	4410'
Gas	Mesaverde	6731'
Gas	MVU2	7698'
Gas	MVL1	8280'
Water	N/A	
Other Minerals	N/A	

3. Pressure Control Equipment (Schematic Attached)

Please see the Natural Buttes Unit Standard Operating Procedure (SOP).

4. Proposed Casing & Cementing Program:

Please see the Natural Buttes Unit SOP.

5. Drilling Fluids Program:

Please see the Natural Buttes Unit SOP.

6. Evaluation Program:

Please see the Natural Buttes Unit SOP.

7. Abnormal Conditions:

Maximum anticipated bottomhole pressure calculated at 8800' TD, approximately equals 5456 psi (calculated at 0.62 psi/foot).

Maximum anticipated surface pressure equals approximately 3520 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

9. Variances:

Please see Natural Buttes Unit SOP Onshore Order #2 – Air Drilling Variance
Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- *Blowout Prevention Equipment (BOPE) requirements;*
- *Mud program requirements; and*
- *Special drilling operation (surface equipment placement) requirements associated with air drilling.*

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background
In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12-1/4 inch hole

to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 12-1/4 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 9-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements
The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements
Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements
Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Conclusion
The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above..

10. Other Information:

Please see Natural Buttes Unit SOP.

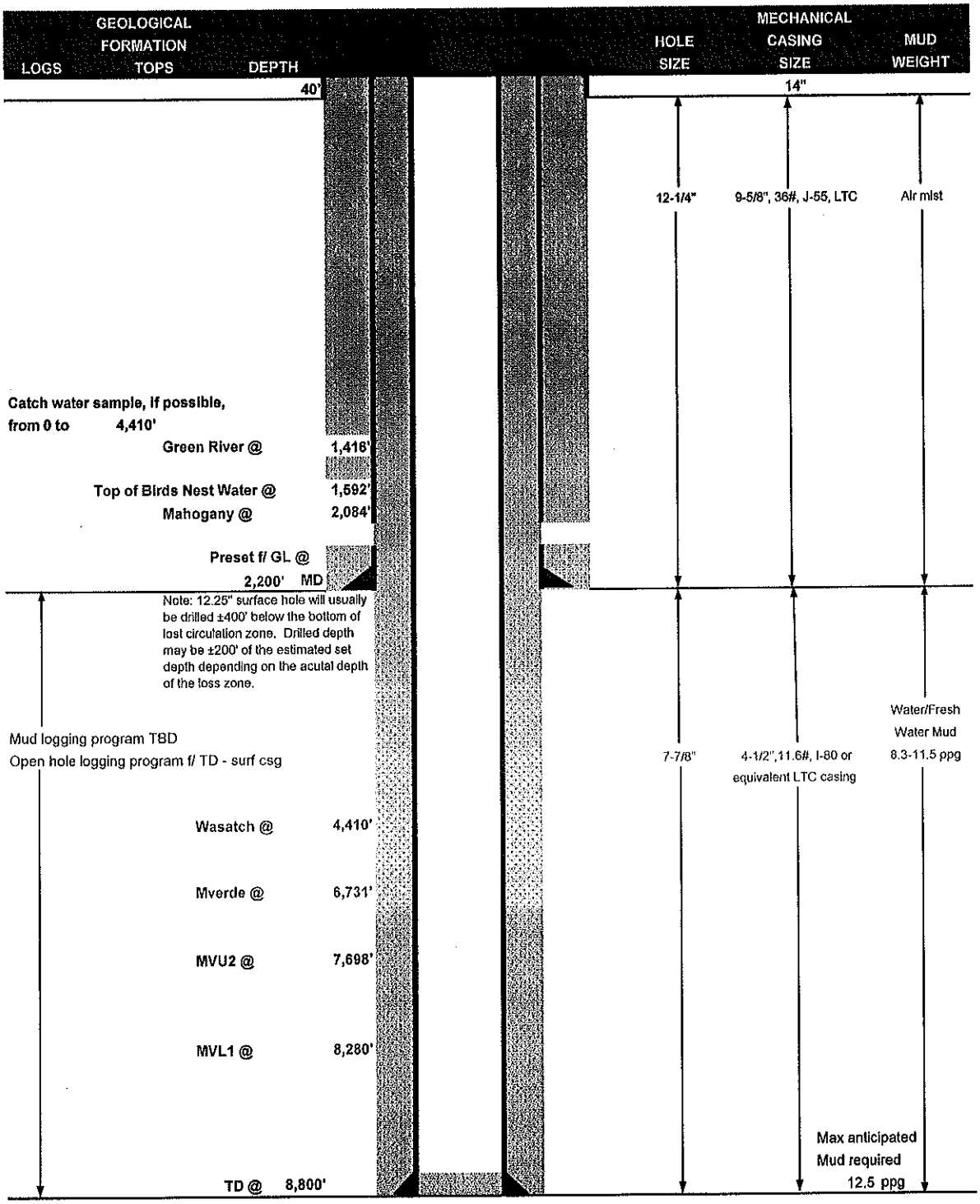
'APIWellNo:43047501680000'

KerrMcGee

KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP	DATE	September 11, 2008
WELL NAME	NBU 1022-03O3T	TD	8,800' MD/TVD
FIELD	Natural Buttes	COUNTY Uintah	STATE Utah
ELEVATION	5,280' GL	KB 5,295'	
SURFACE LOCATION	SWSE 561' FSL,2042' FEL, SECTION 3, T10S, R22E	BHL	Straight Hole
	Latitude: 39.972278 Longitude: -109.423261	NAD 27	
OBJECTIVE ZONE(S)	Wasatch/Mesaverde		
ADDITIONAL INFO	Regulatory Agencies: BLM (MINERALS), BLM (SURFACE), UDOGM, Tri-County Health Dept.		



KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'						
						3520	2020	453000
SURFACE	9-5/8"	0 to 2,200'	36.00	J-55	LTC	0.93	1.96	6.53
						7780	6380	201000
PRODUCTION	4-1/2"	0 to 8800	11.60	I-80	LTC	2.06	1.11	2.26

1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point)

2) MASP (Prod Casing) = Pore Pressure at TD - (.22 psi/ft-partial evac gradient x TD)

(Burst Assumptions: TD = 12.5 ppg) .22 psi/ft = gradient for partially evac wellbore

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

MASP 4320 psi

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500	Premium cmt + 2% CaCl	215	60%	15.60	1.18
Option 1			+ 25 pps flocele				
	TOP OUT CMT (1)	250	20 gals sodium silicate + Premium cmt	100		15.60	1.18
			+ 2% CaCl + 25 pps flocele				
	TOP OUT CMT (2)	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
SURFACE			NOTE: If well will circulate water to surface, option 2 will be utilized				
Option 2	LEAD	2000	Prem cmt + 16% Gel + 10 pps gilsonite	230	35%	11.00	3.82
			+ 25 pps Flocele + 3% salt BWOC				
	TAIL	500	Premium cmt + 2% CaCl	180	35%	15.60	1.18
			+ 25 pps flocele				
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
PRODUCTION	LEAD	3,910'	Premium Lite II + 3% KCl + 0.25 pps	430	60%	11.80	3.38
			celloflake + 5 pps gilsonite + 10% gel				
			+ 0.5% extender				
	TAIL	4,890'	50/50 Poz/G + 10% salt + 2% gel	1370	60%	14.30	1.31
			+ 1% R-3				

*Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

*Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe.
PRODUCTION	Float shoe, 1 jt, float collar. Centralize first 3 joints & every third joint to top of tail cement with bow spring centralizers.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. Test to 5,000 psi (annular to 2,500 psi) prior to drilling out. Record on chart recorder & tour sheet. Function test rams on each trip. Maintain safety valve & inside BOP on rig floor at all times. Kelly to be equipped with upper & lower kelly valves.

Drop Totco surveys every 2000'. Maximum allowable hole angle is 5 degrees.

Most rigs have PVT Systems for mud monitoring. If no PVT is available, visual monitoring will be utilized.

DRILLING ENGINEER: _____ **DATE:** _____

Brad Laney

DRILLING SUPERINTENDENT: _____ **DATE:** _____

Randy Bayne

NBU 1022-03O3T
SWSE SEC 03 ,T10S,R22E
UINTAH COUNTY, UTAH
UTU-01191-A

ONSHORE ORDER NO. 1

MULTI-POINT SURFACE USE & OPERATIONS PLAN

1. **Existing Roads:**

   Refer to the attached location directions.

   Refer to Topo Maps A and B for location of access roads within a 2-mile radius.

2. **Planned Access Roads:**

   No new access road is planned, as this is a twin location. Refer to Topo Map B.

   Existence of pipelines; maximum grade; turnouts; major cut and fills, culverts, or bridges; gates, cattle guards, fence cuts, or modifications to existing facilities were determined at the on-site.

   Please see the Natural Buttes Unit Standard Operating Procedure (SOP).

3. **Location of Existing Wells Within a 1-Mile Radius:**

   Please refer to Topo Map C.

4. **Location of Existing & Proposed Facilities:**

   Utilizing existing pipeline

   Please see the Natural Buttes Unit SOP.

   Variances to Best Management Practices (BMPs) Requested:

   All facilities will be painted within six months of installation. Facilities required to comply with the Occupational Safety and Health Act (OSHA) will be excluded. The requested color is Shadow Grey a non-reflective earthtone.

   Interim Surface Reclamation Plan:

   This exception is requested due to the current twin and multi-well program. If determined that this well will not be a candidate for either twinning &/or multi-well the operator shall spread the topsoil pile on the location up to the rig anchor points. The location will be reshaped to the

original contour to the extent possible. The operator will reseed the area using the BLM recommended seed mixture and reclamation methods.

5. **Location and Type of Water Supply:**

Please see the Natural Buttes SOP.

6. **Source of Construction Materials:**

Please see the Natural Buttes SOP.

7. **Methods of Handling Waste Materials:**

Please see the Natural Buttes SOP.

A plastic reinforced liner is to be used. It will be a minimum of 20 mil thick and felt, with sufficient bedding used to cover any rocks. The liner will overlap the pit walls and be covered with dirt and/or rocks to hold it in place. No trash or scrap that could puncture the liner will be disposed of in the pit.

Any produced water from the proposed well will be contained in a water tank and will then be hauled by truck to one of the pre-approved disposal sites: RNI, Sec. 5, T9S, R22E, NBU #159, Sec. 35, T9S R21E, Ace Oilfield, Sec. 2, T6S, R20E, MC&MC, Sec. 12, T6S, R19E, Pipeline Facility Sec. 36, T9S, R20E,Goat Pasture Evaporation Pond SW/4 Sec. 16, T10S, R22E, Bonanza Evaporation Pond Sec. 2, T10S, R23E *(Request is in lieu of filing Form 3160-5, after initial production).*

8. **Ancillary Facilities:**

Please see the Natural Buttes SOP.

9. **Well Site Layout:** (See Location Layout Diagram)

The attached Location Layout Diagram describes drill pad cross-sections, cuts and fills, and locations of the mud tanks, reserve pit, flare pit, pipe racks, trailer parking, spoil dirt stockpile(s), and surface material stockpile(s).

Please see the attached diagram to describe rig orientation, parking areas, and access roads.

Location size may change prior to the drilling of the well due to the current rig availability. If the proposed location is not large enough to accommodate the drilling rig. The location will be re-surveyed and a form 3160-5 will be submitted.

10. Plans for Reclamation of the Surface:

Please see the Natural Buttes SOP.

11. Surface/Mineral Ownership:

The well pad, access road and pipeline are located on lands owned by:

United States of America
Bureau of Land Management
170 South 500 East
Vernal, UT 84078
(435)781-4400

12. Other Information:

A Class III archaeological survey, T&E Clearance and a paleontological survey have been performed and will be submitted.

This location is not within 460' from the boundary of the Natural Buttes Unit, nor is it within 460' of any non-committed tract lying within the boundaries of the Unit.

13. Lessee's or Operator's Representative & Certification:

Raleen White
Sr. Regulatory Analyst
Kerr-McGee Oil & Gas Onshore LP
P.O. Box 173779
Denver, CO 80217-3779
(720) 929-6666

Randy Bayne
Drilling Manager
Kerr-McGee Oil & Gas Onshore LP
1368 South 1200 East
Vernal, UT 84078
(435) 781-7018

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under the terms and conditions of the lease for the operations conducted upon leased lands.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided Bureau of Land Management Nationwide Bond #WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed by the Operator, its contractors, and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

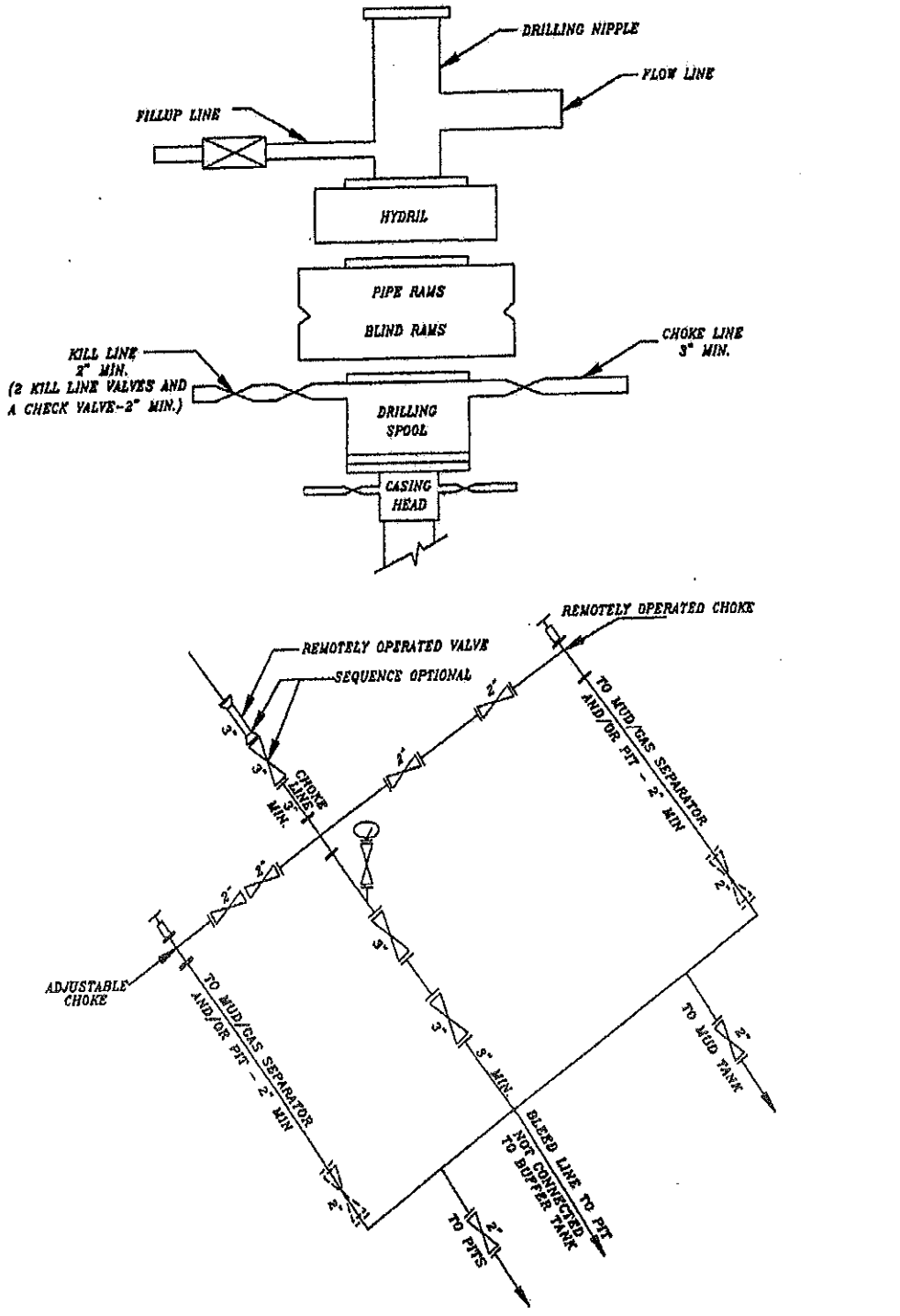
Raleen White

Raleen White

9/11/2008
Date

'APIWellNo:43047501680000'

EXHIBIT A



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

Kerr-McGee Oil & Gas Onshore LP
NBU #1022-03O3T
SECTION 3, T10S, R22E, S.L.B.&M.

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 14.0 MILES TO THE JUNCTION OF STATE HIGHWAY 88; EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 17.0 MILES TO OURAY, UTAH; PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 11.2 MILES ON THE SEEP RIDGE ROAD TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN LEFT AND PROCEED IN AN EASTERLY, THEN SOUTHEASTERLY DIRECTION APPROXIMATELY 8.9 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHEAST; TURN LEFT AND PROCEED IN AN NORTHEASTERLY DIRECTION APPROXIMATELY 3.9 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTH; TURN LEFT AND PROCEED IN A NORTHERLY DIRECTION APPROXIMATELY 0.8 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN RIGHT AND PROCEED IN AN EASTERLY DIRECTION APPROXIMATELY 0.6 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHEAST; TURN RIGHT AND PROCEED IN A SOUTHEASTERLY, THEN SOUTHWESTERLY DIRECTION APPROXIMATELY 0.2 MILES TO THE EXISTING WELL #290 AND THE PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 56.6 MILES.

'APIWellNo:43047501680000'

Kerr McGee Oil & Gas Onshore LP

NBU #1022-03O3T

LOCATED IN UINTAH COUNTY, UTAH
SECTION 3, T10S, R22E, S.L.B.&M.

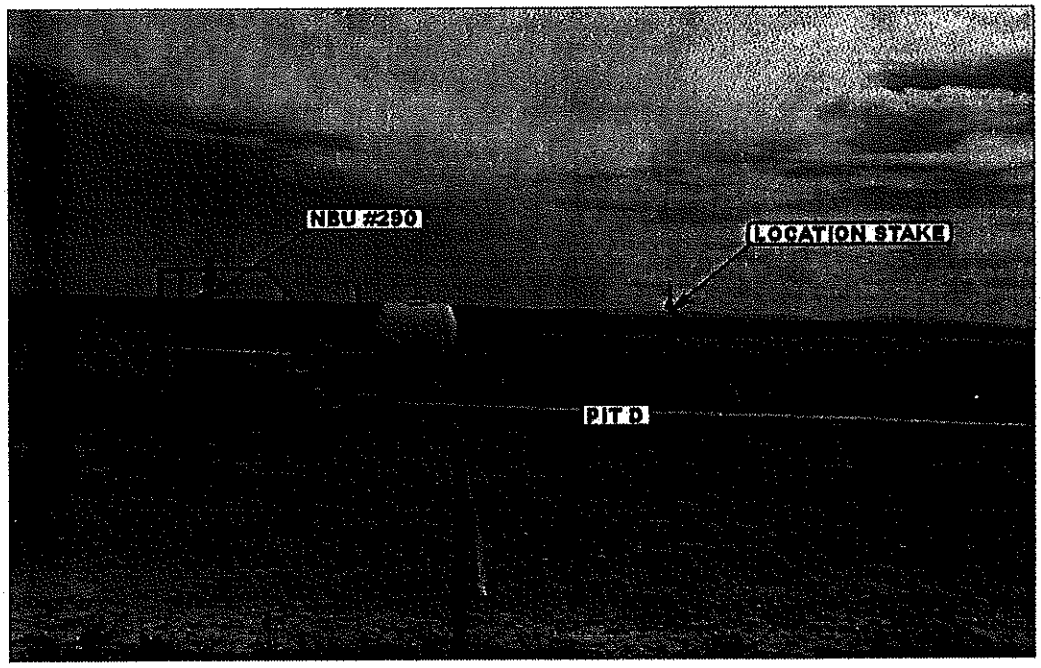


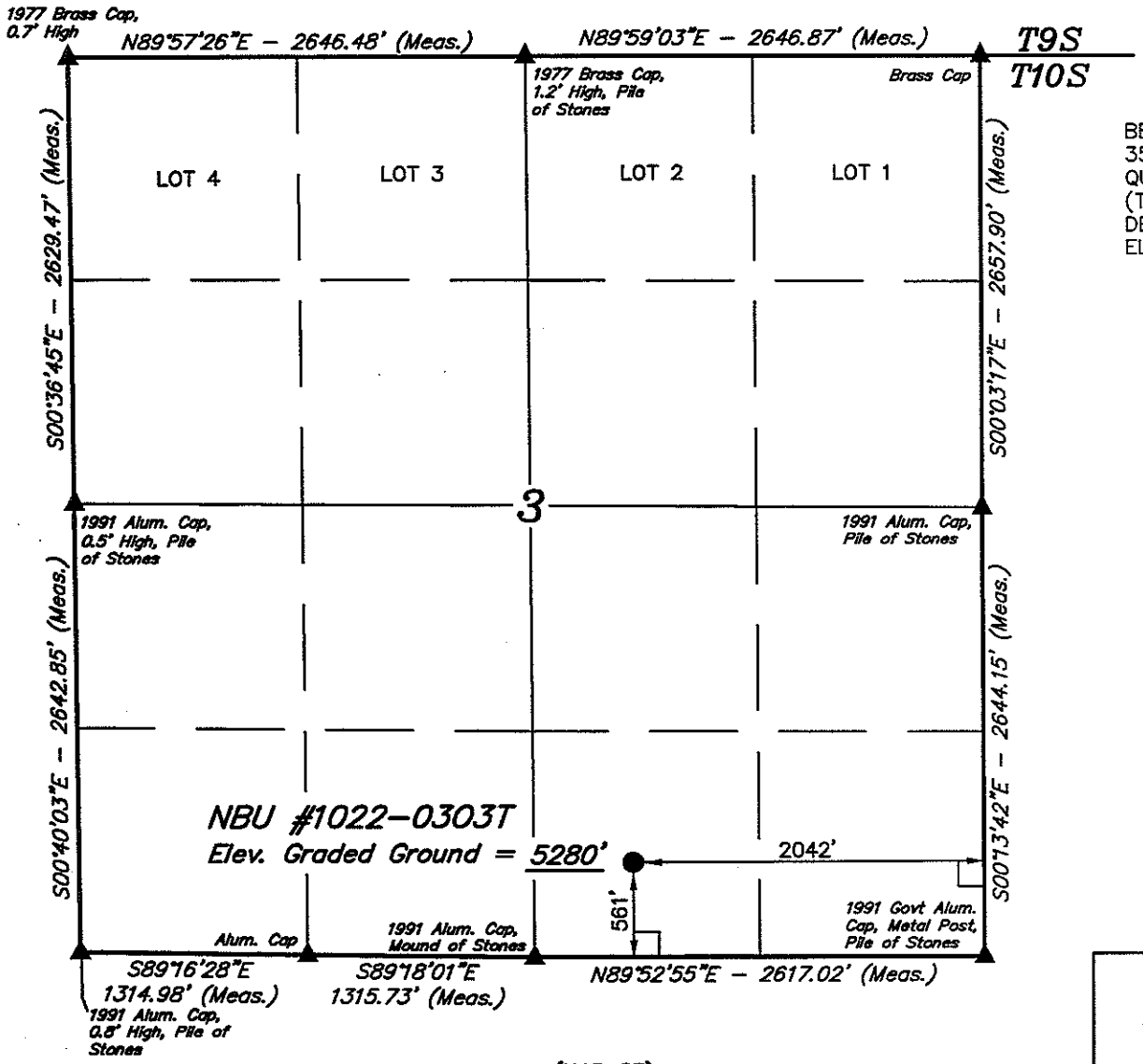
PHOTO: VIEW FROM PIT D TO LOCATION STAKE **CAMERA ANGLE: EASTERLY**

PHOTO: VIEW OF EXISTING ACCESS **CAMERA ANGLE: SOUTHERLY**

- Since 1964 -
UELS Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

LOCATION PHOTOS	08 MONTH	18 DAY	08 YEAR	PHOTO
TAKEN BY: L.K.	DRAWN BY: J.J.	REVISED: 00-00-00		

T10S, R22E, S.L.B.&M.



LEGEND:

└ = 90° SYMBOL

● = PROPOSED WELL HEAD.

▲ = SECTION CORNERS LOCATED.

(NAD 83)
LATITUDE = 39°58'20.08" (39.972244)
LONGITUDE = 109°25'26.20" (109.423944)
(NAD 27)
LATITUDE = 39°58'20.20" (39.972278)
LONGITUDE = 109°25'23.74" (109.423261)

Kerr–McGee Oil & Gas Onshore LP

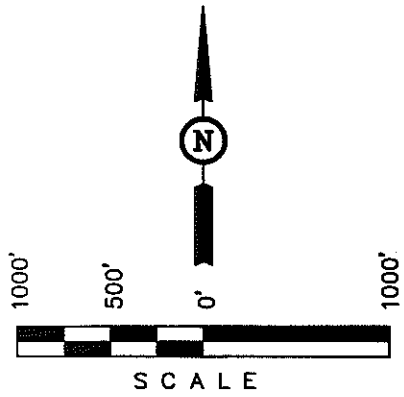
Well location, NBU #1022–0303T, located as Shown in the SW 1/4 SE 1/4 of Section 3, T10S, R22E, S.L.B.&M., Uintah County, Utah.

BASIS OF ELEVATION

BENCH MARK (20EAM) LOCATED IN THE SE 1/4 OF SECTION 35, T8S, R21E, S.L.B.&M. TAKEN FROM THE OURAY SE QUADRANGLE, UTAH, UINTAH COUNTY, 7.5 MINUTE SERIES (TOPOGRAPHICAL MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 4697 FEET.

BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.



SCALE

CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR
REGISTRATION NO. 161319
STATE OF UTAH

UINTAH ENGINEERING & LAND SURVEYING
85 SOUTH 200 EAST – VERNAL, UTAH 84078
(435) 789–1017

SCALE 1" = 1000'	DATE SURVEYED: 08–06–08	DATE DRAWN: 08–20–08
PARTY L.K. D.D. S.L.	REFERENCES G.L.O. PLAT	
WEATHER WARM	FILE Kerr–McGee Oil & Gas Onshore LP	

'APIWellNo:43047501680000'

Kerr–McGee Oil & Gas Onshore LP

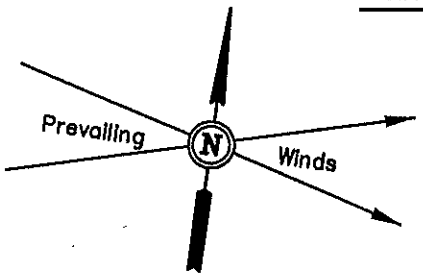
FIGURE #1

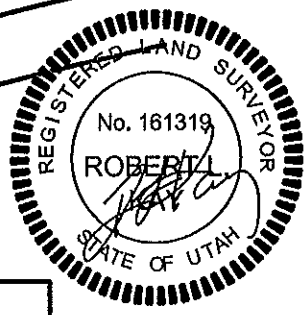
LOCATION LAYOUT FOR

NBU #1022–0303T

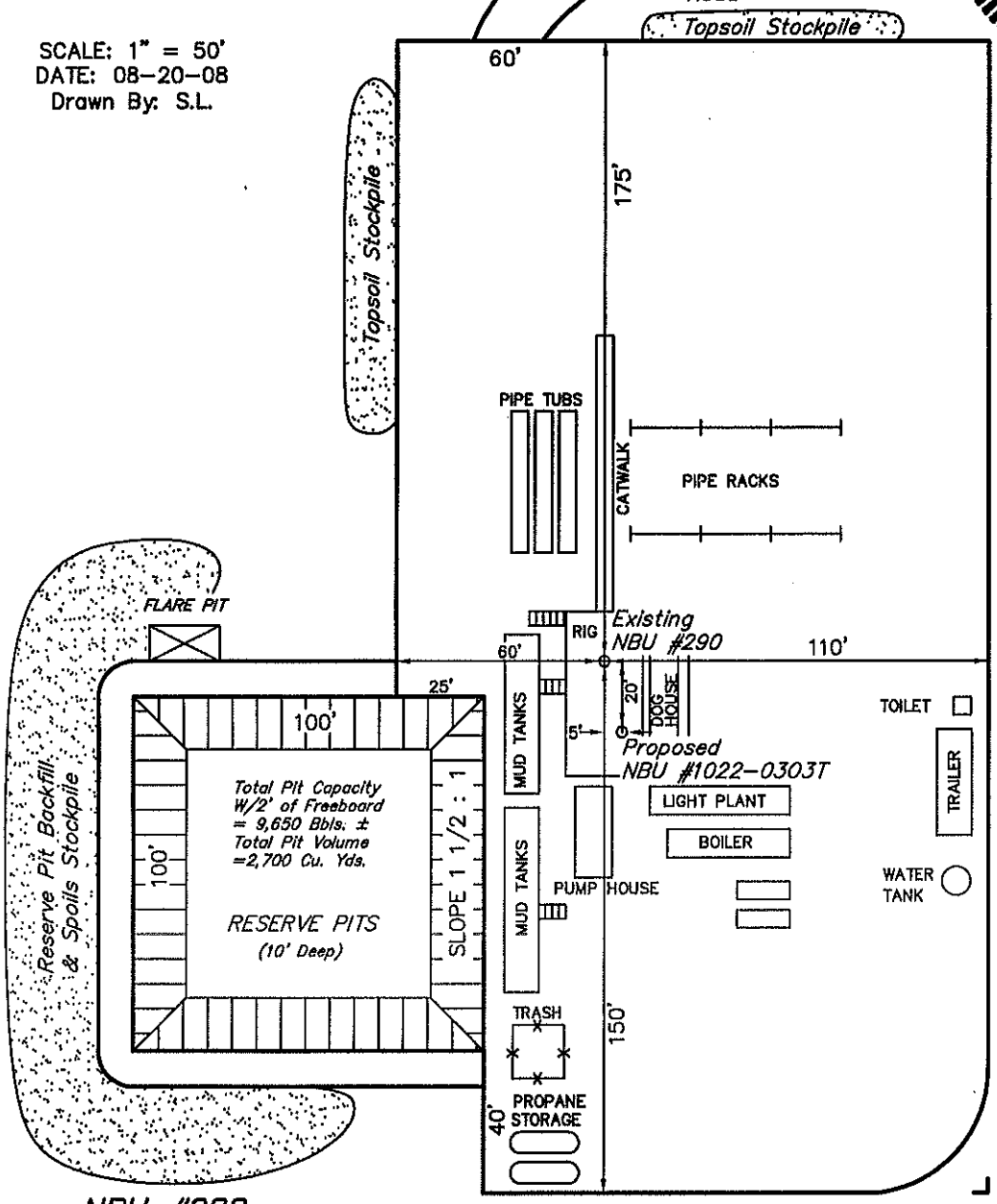
SECTION 3, T10S, R22E, S.L.B.&M.

561' FSL 2042' FEL





SCALE: 1" = 50'
DATE: 08–20–08
Drawn By: S.L.



NBU #288

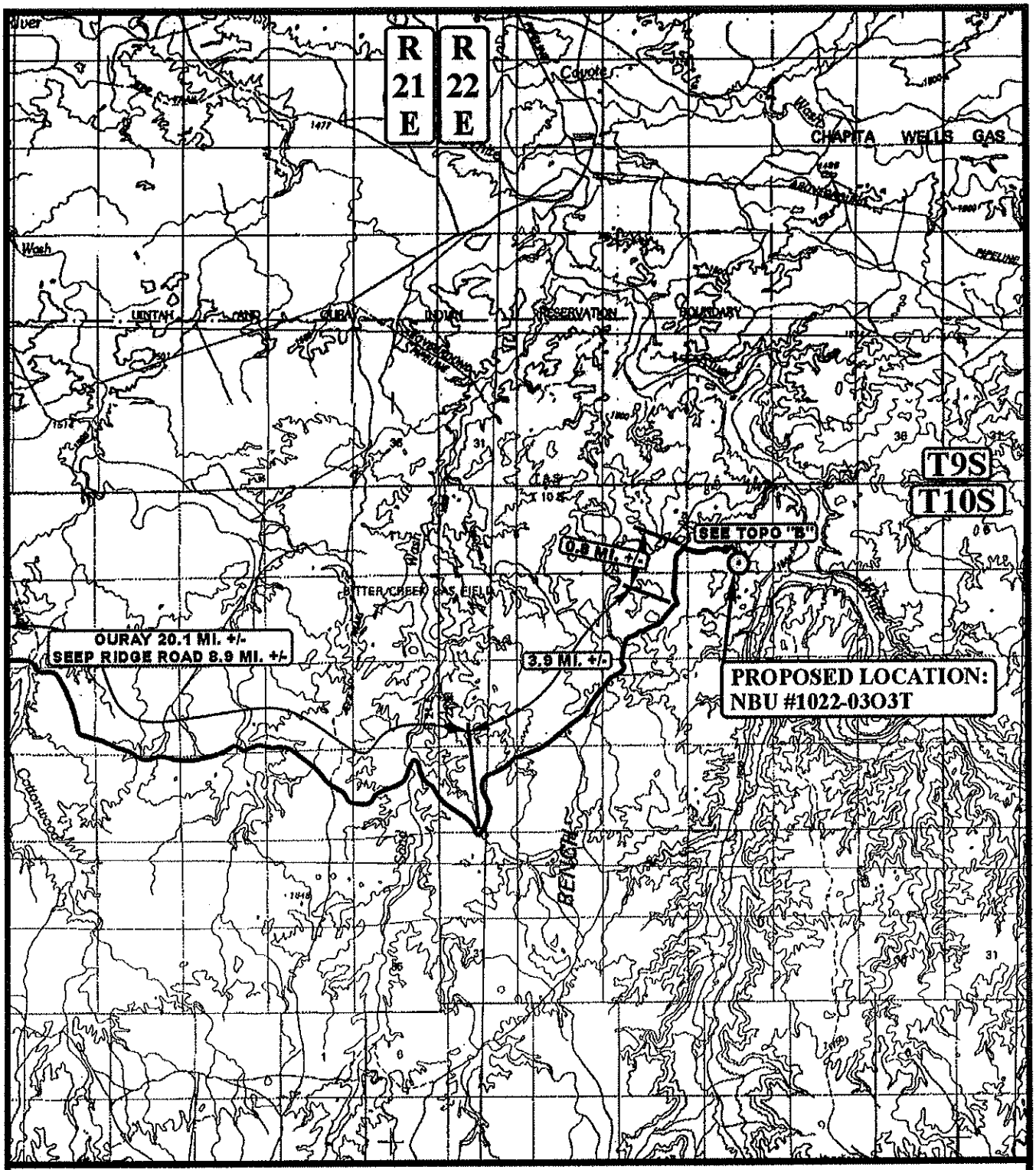
(NAD 83)
LATITUDE = 39°58'20.26" (39.972294)
LONGITUDE = 109°25'26.30" (109.423972)
(NAD 27)
LATITUDE = 39°58'20.38" (39.972328)
LONGITUDE = 109°25'23.84" (109.423289)

NOTES:

FINISHED GRADE ELEV. AT LOC. STAKE = 5280.0'

UINTAH ENGINEERING & LAND SURVEYING
86 So. 200 East * Vernal, Utah 84078 * (435) 789–1017

'APIWellNo:43047501680000'



LEGEND:

⊙ PROPOSED LOCATION

N

Kerr McGee Oil & Gas Onshore LP

NBU #1022-03O3T

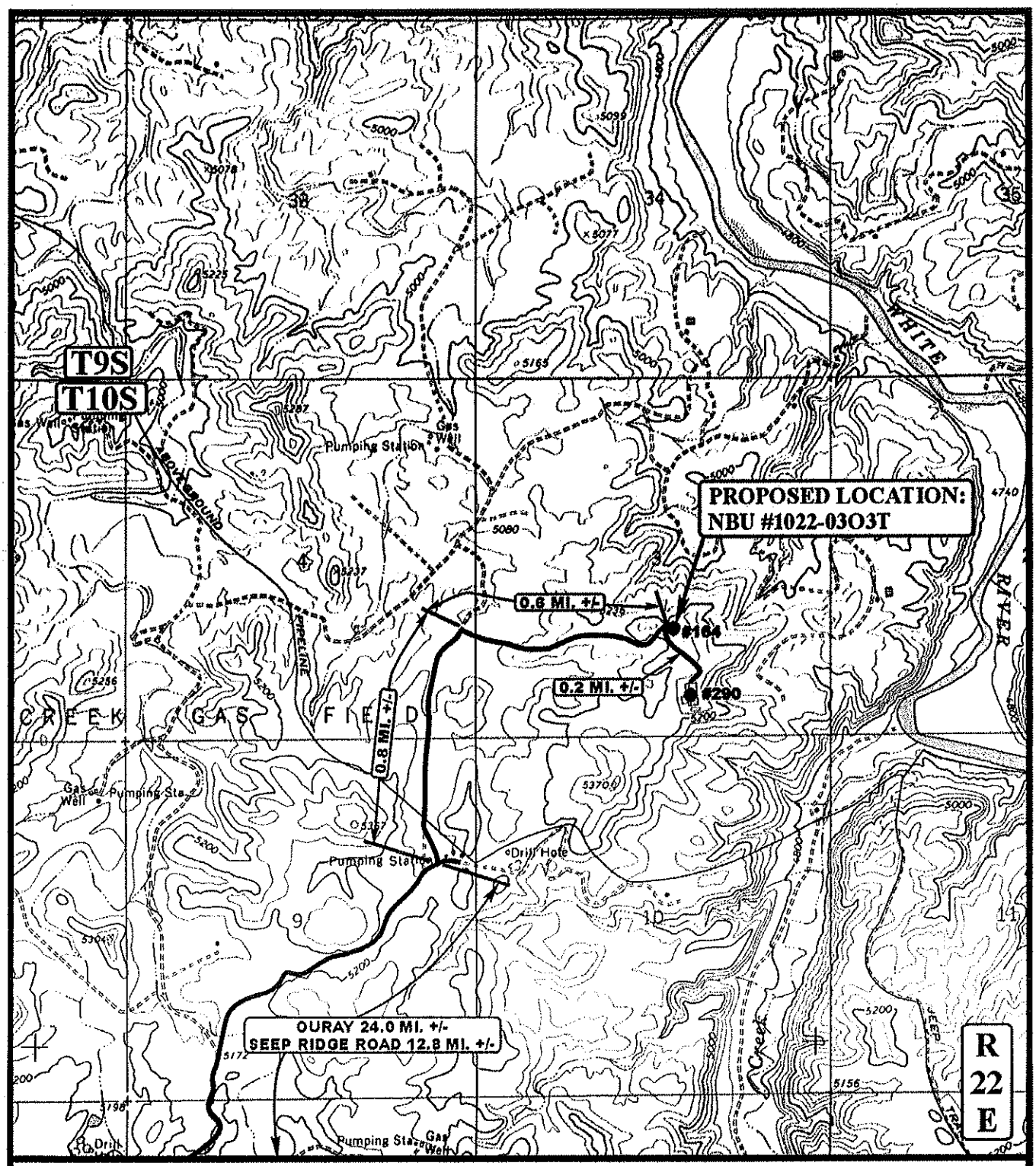
SECTION 3, T10S, R22E, S.L.B.&M.

561' FSL 2042' FEL

Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC MAP	08 MONTH	18 DAY	08 YEAR	A TOPO
SCALE: 1:100,000	DRAWN BY: J.J.	REVISED: 00-00-00		

'APIWellNo:43047501680000'



LEGEND:

EXISTING ROAD

PROPOSED ACCESS ROAD

N

Kerr McGee Oil & Gas Onshore LP

NBU #1022-03O3T

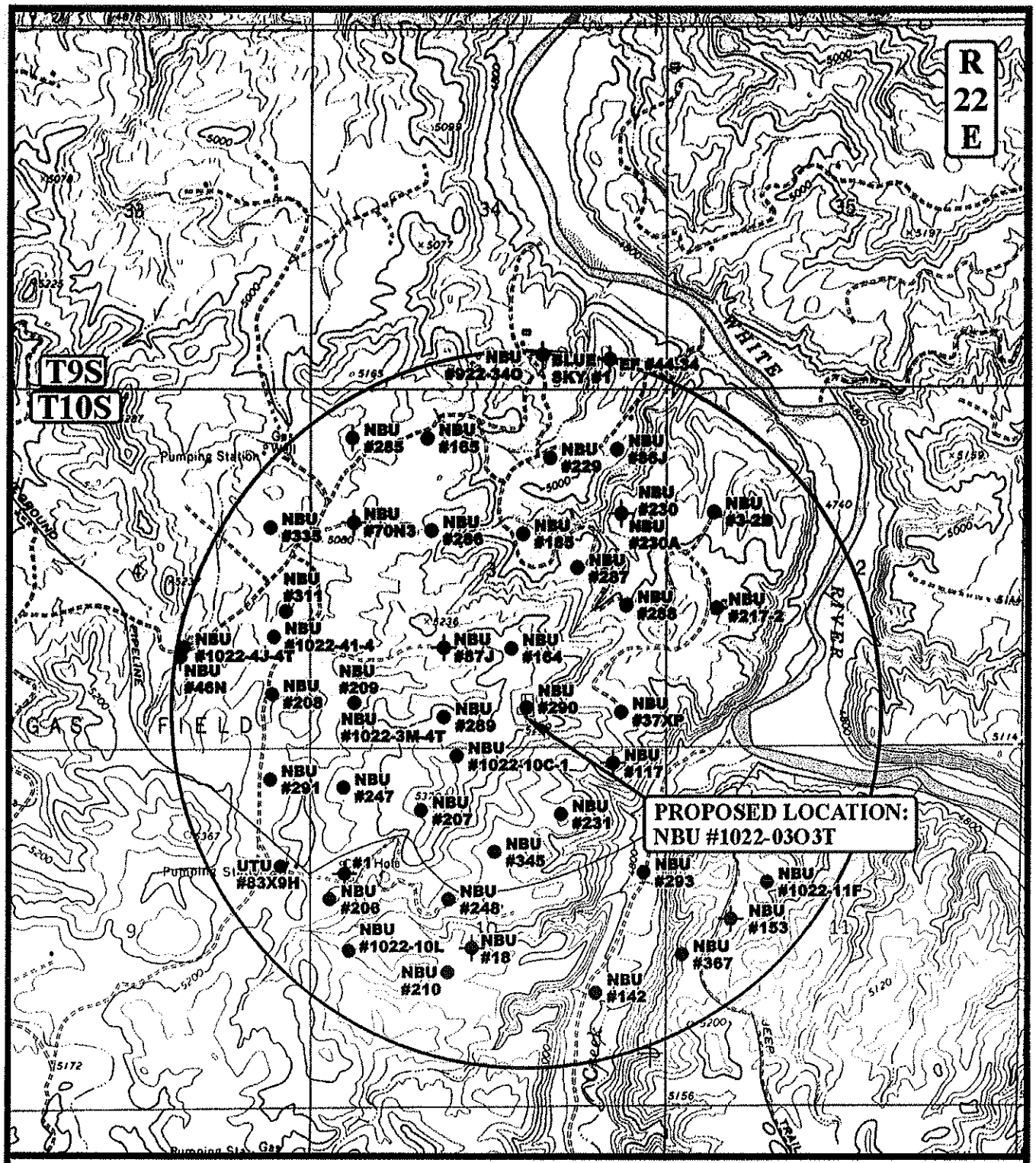
SECTION 3, T10S, R22E, S.L.B.&M.

561' FSL 2042' FEL

Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC MAP	08 MONTH	18 DAY	08 YEAR	B TOPO
SCALE: 1" = 2000'	DRAWN BY: J.J.	REVISED: 00-00-00		

'APIWellNo:43047501680000'



LEGEND:

- DISPOSAL WELLS
- PRODUCING WELLS
- SHUT IN WELLS
- WATER WELLS
- ABANDONED WELLS
- TEMPORARILY ABANDONED

N

Kerr McGee Oil & Gas Onshore LP

NBU #1022-03O3T

SECTION 3, T10S, R22E, S.L.B.&M.

561 ~~954~~' FSL 2042' FEL

Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC MAP | 08 MONTH | 18 DAY | 08 YEAR

SCALE: 1" = 2000' | DRAWN BY: J.J. | REVISED: 00-00-00

C TOPO

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:
3160
(UT-922)

October 6, 2008

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2008 Plan of Development Natural Buttes Unit Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2008 within the Natural Buttes Unit, Uintah County, Utah.

API #	WELL NAME	LOCATION
(Proposed PZ MESA VERDE)		
43-047-50166	NBU 1022-03H2T	Sec 03 T10S R22E 1809 FNL 0662 FEL
43-047-50167	NBU 1022-03N4T	Sec 03 T10S R22E 0467 FSL 2043 FWL
43-047-50168	NBU 1022-03O3T	Sec 03 T10S R22E 0561 FSL 2042 FEL
43-047-50170	NBU 1022-03L2T	Sec 03 T10S R22E 2092 FSL 0607 FWL
43-047-50171	NBU 1022-03A2T	Sec 03 T10S R22E 0478 FNL 0706 FEL
43-047-50172	NBU 1022-03J1T	Sec 03 T10S R22E 2639 FSL 1316 FEL
43-047-50173	NBU 1022-03P4T	Sec 03 T10S R22E 0559 FSL 0659 FEL

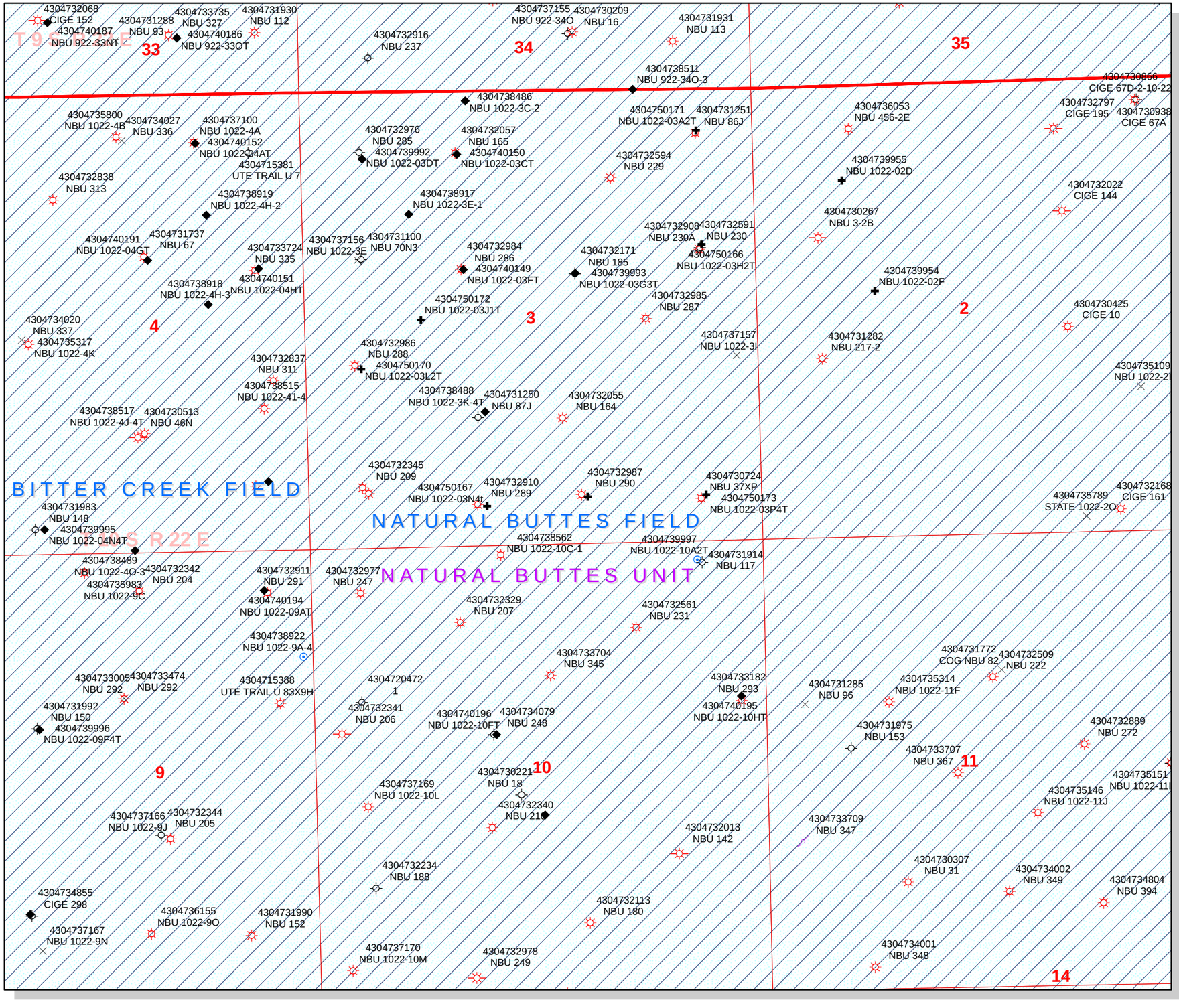
This office has no objection to permitting the wells at this time.

/s/ Michael L. Coulthard

bcc: File – Natural Buttes Unit
Division of Oil Gas and Mining
Central Files
Agr. Sec. Chron
Fluid Chron

API Well No: 43047501680000

MCoulthard:mc:10-6-08



API Number: 4304750168

Well Name: NBU 1022-03O3T

Township 10.0 S Range 22.0 E Section 3

Meridian: SLBM

Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Map Prepared:
Map Produced by Diana Mason

Units

STATUS
- ACTIVE
- EXPLORATORY
- GAS STORAGE
- NF PP OIL
- NF SECONDARY
- PI OIL
- PP GAS
- PP GEOTHERML
- PP OIL
- SECONDARY
- TERMINATED

Fields

STATUS
- ACTIVE
- COMBINED
- Sections
- Township

Wells Query Events
- <all other values>

GIS_STAT_TYPE
- <Null>
- APD
- DRL
- GI
- GS
- LA
- NEW
- OPS
- PA
- PGW
- POW
- RET
- SGW
- SOW
- TA
- TW
- WD
- WI
- WS
- Bottom Hole Location

1,500 750 0 1,500 Feet

1:14,227

'APIWellNo:43047501680000'

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 10/2/2008 **API NO. ASSIGNED:** 43047501680000

WELL NAME: NBU 1022-03O3T

OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995) **PHONE NUMBER:** 720 929-6666

CONTACT: Raleen White

PROPOSED LOCATION: SWSE 3 100S 220E **Permit Tech Review:** ☑

SURFACE: 0561 FSL 2042 FEL **Engineering Review:** ☑

BOTTOM: 0561 FSL 2042 FEL **Geology Review:** ☑

COUNTY: UINTAH

LATITUDE: 39.97220 **LONGITUDE:** -109.42325

UTM SURF EASTINGS: 634652.00 **NORTHINGS:** 4425652.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 1 - Federal

LEASE NUMBER: UTU-01191-A **PROPOSED FORMATION:** WSMVD

SURFACE OWNER: 1 - Federal **COALBED METHANE:** NO

RECEIVED AND/OR REVIEWED:

- ☑ **PLAT**
- ☑ **Bond:** FEDERAL - WYB-000291
- ☐ **Potash**
- ☑ **Oil Shale 190-5**
- ☐ **Oil Shale 190-3**
- ☐ **Oil Shale 190-13**
- ☑ **Water Permit:** Permit #43-8496
- ☐ **RDCC Review:**
- ☐ **Fee Surface Agreement**
- ☐ **Intent to Commingle**

LOCATION AND SITING:

- ☐ **R649-2-3.**

  Unit: NATURAL BUTTES
- ☐ **R649-3-2. General**
- ☐ **R649-3-3. Exception**
- ☑ **Drilling Unit**

  Board Cause No: Cause 173-14

  Effective Date:

  Siting:
- ☐ **R649-3-11. Directional Drill**

Comments: Presite Completed

Stipulations: 3 - Commingling - ddoucet
4 - Federal Approval - dmason
17 - Oil Shale 190-5(b) - dmason

JON M. HUNTSMAN, JR.
Governor
GARY R. HERBERT
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES
MICHAEL R. STYLER
Executive Director
Division of Oil, Gas and Mining
JOHN R. BAZA
Division Director

Permit To Drill

****

Well Name: NBU 1022-03O3T
API Well Number: 43047501680000
Lease Number: UTU-01191-A
Surface Owner: FEDERAL
Approval Date: 12/24/2008

Issued to:
KERR-MCGEE OIL & GAS ONSHORE, L.P. , P.O. Box 173779, Denver, CO 80217

Authority:
Pursuant to Utah Code Ann. §40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 173-14.

Duration:
This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

Commingle:
In accordance with Cause No. 173-14, commingling the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

General:
Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:
State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

Notification Requirements:
Notify the Division with 24 hours of spudding the well.
- Contact Carol Daniels at (801) 538-5284.

Notify the Division prior to commencing operations to plug and abandon the well.
- Contact Dustin Doucet at (801) 538-5281 office (801) 733-0983 home

Reporting Requirements:
All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

Approved By:

For Gil Hunt
Associate Director, Oil & Gas

API Well No: 43047501680000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-01191-A

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 1022-03O3T

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047501680000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6587 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0561 FSL 2042 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSE Section: 3 Township: 10.0S Range: 22.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 5/21/2009	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	✓ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
☐ SPUD REPORT Date of Spud:	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests to change the surface location of this well. The surface location is changing FROM: 561' FSL 2042' FEL TO: 601' FSL 2047' FEL All other information as originally submitted remains the same. No additional surface disturbance from that amount approved in the original APD is anticipated. If you have any questions, please contact the undersigned. Thank you.

Approved by the Utah Division of Oil, Gas and Mining

Date: May 19, 2009

By:

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Danielle Piernot	720 929-6156	Regulatory Analyst
SIGNATURE N/A		**DATE** 5/18/2009

RECEIVED May 18, 2009

Kerr-McGee Oil & Gas Onshore LP

NBU #1022-03O3T

LOCATED IN UINTAH COUNTY, UTAH
SECTION 3, T10S, R22E, S.L.B.&M.

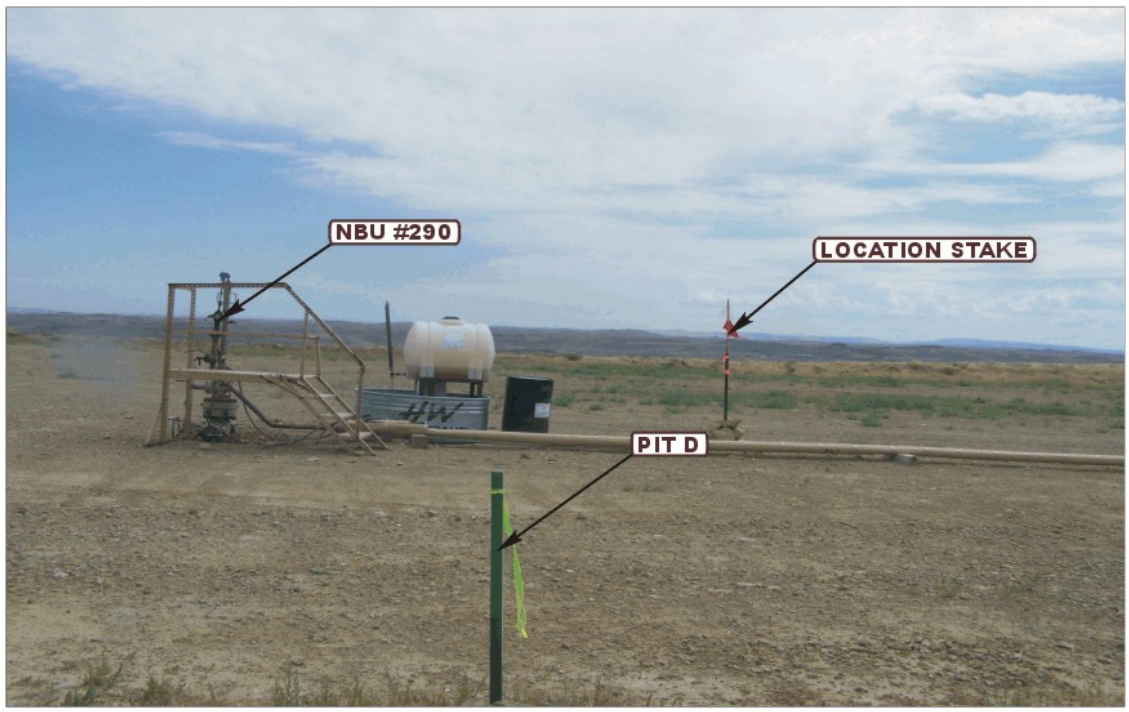


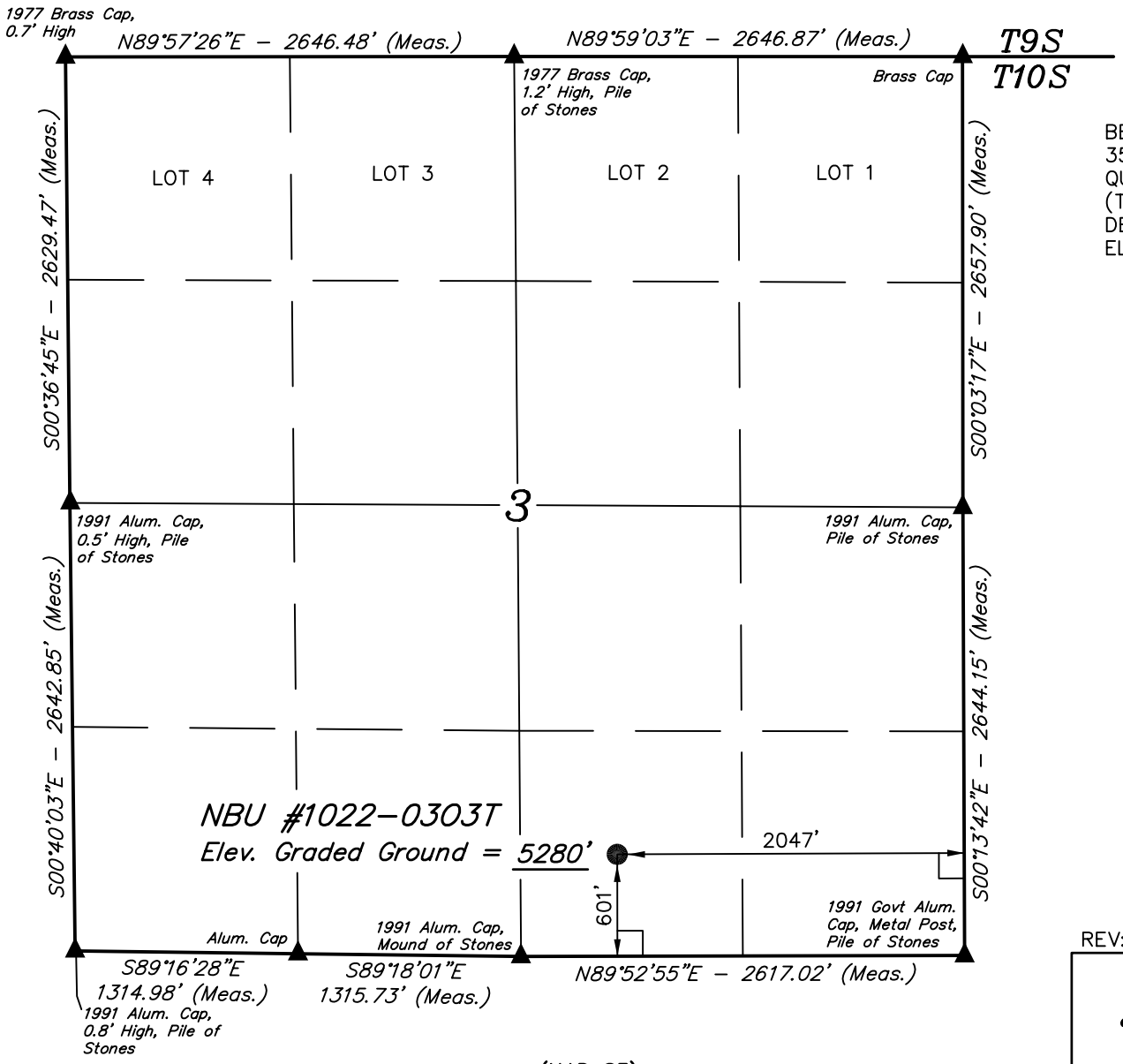
PHOTO: VIEW FROM PIT D TO LOCATION STAKE **CAMERA ANGLE: EASTERLY**

PHOTO: VIEW OF EXISTING ACCESS **CAMERA ANGLE: SOUTHERLY**

- Since 1964 -
Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

LOCATION PHOTOS	08 MONTH	18 DAY	08 YEAR	PHOTO
TAKEN BY: L.K.	DRAWN BY: J.J.	REVISED: 00-00-00		

T10S, R22E, S.L.B.&M.



LEGEND:

- └ = 90° SYMBOL
- ● = PROPOSED WELL HEAD.
- ▲ = SECTION CORNERS LOCATED.

(NAD 83)
LATITUDE = 39°58'20.47" (39.972353)
LONGITUDE = 109°25'26.27" (109.423964)
(NAD 27)
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Kerr-McGee Oil & Gas Onshore LP

Well location, NBU #1022-0303T, located as Shown in the SW 1/4 SE 1/4 of Section 3, T10S, R22E, S.L.B.&M., Uintah County, Utah.

BASIS OF ELEVATION

BENCH MARK (20EAM) LOCATED IN THE SE 1/4 OF SECTION 35, T8S, R21E, S.L.B.&M. TAKEN FROM THE OURAY SE QUADRANGLE, UTAH, UINTAH COUNTY, 7.5 MINUTE SERIES (TOPOGRAPHICAL MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 4697 FEET.

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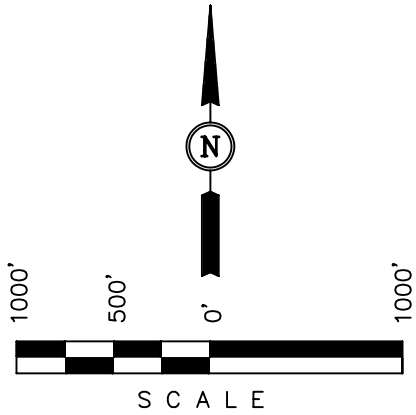


SCALE

CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR
REGISTRATION NO. 161319
STATE OF UTAH

REV: 03-10-09 K.E.

UINTAH ENGINEERING & LAND SURVEYING
85 SOUTH 200 EAST - VERNAL, UTAH 84078
(435) 789-1017

SCALE 1" = 1000'	DATE SURVEYED: 08-06-08	DATE DRAWN: 08-20-08
PARTY L.K. D.D. S.L.	REFERENCES G.L.O. PLAT	
WEATHER WARM	FILE Kerr-McGee Oil & Gas Onshore LP	

Kerr-McGee Oil & Gas Onshore LP

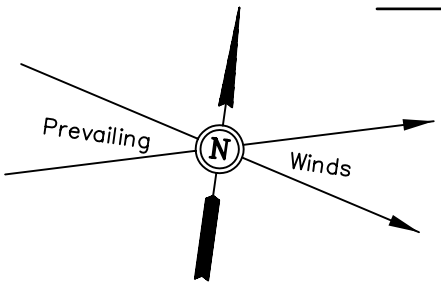
FIGURE #1

LOCATION LAYOUT FOR

NBU #1022-0303T

SECTION 3, T10S, R22E, S.L.B.&M.

601' FSL 2047' FEL



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Drawn By: S.L.
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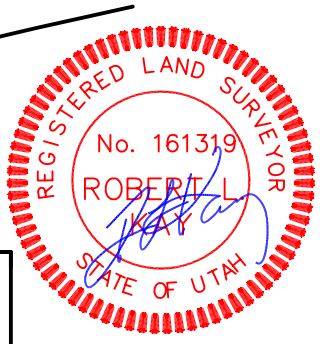

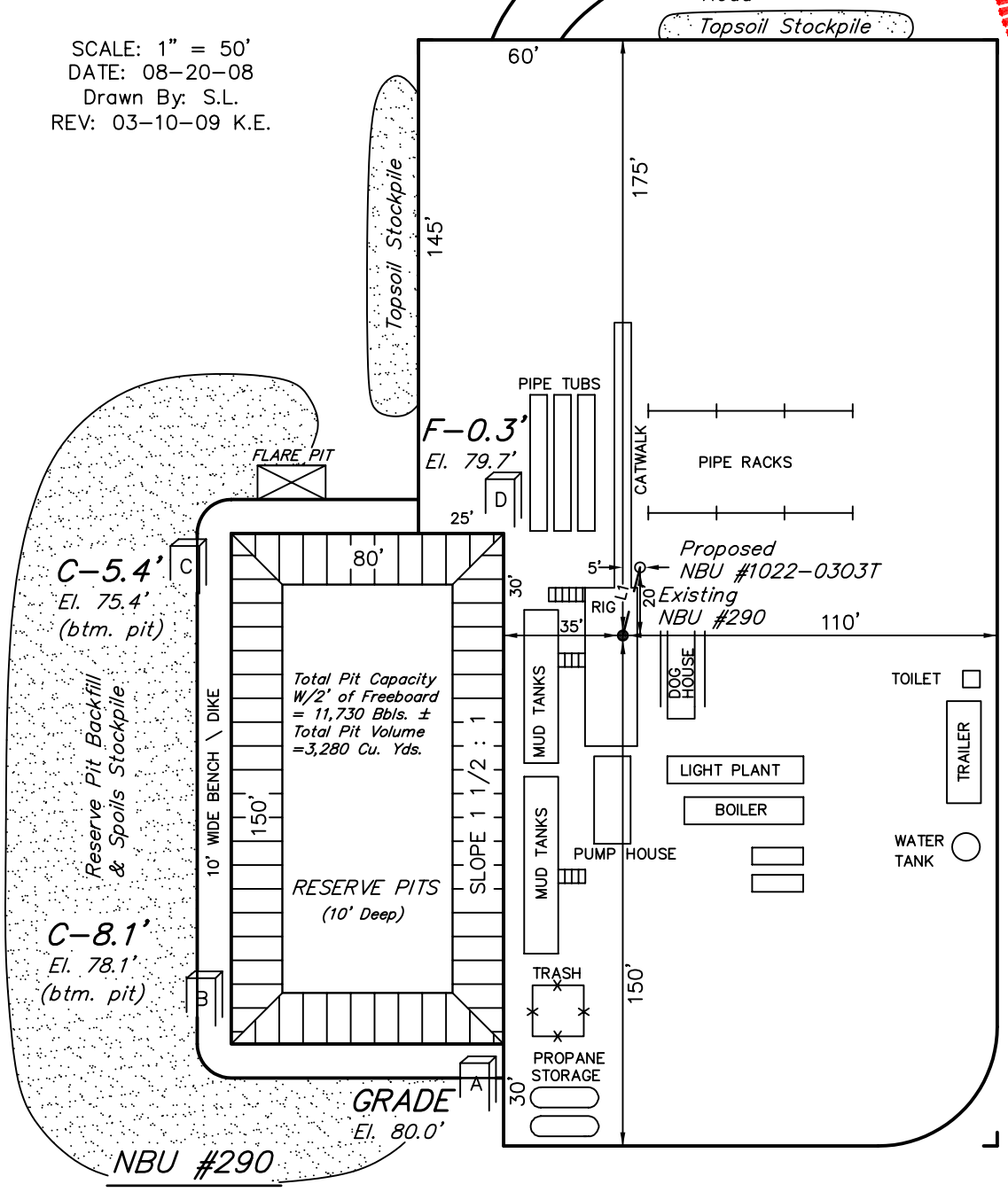

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AZIMUTH TABLE		
LINE	BEARING	LENGTH
L1	06.146944 Az.	20.64'

NOTES:

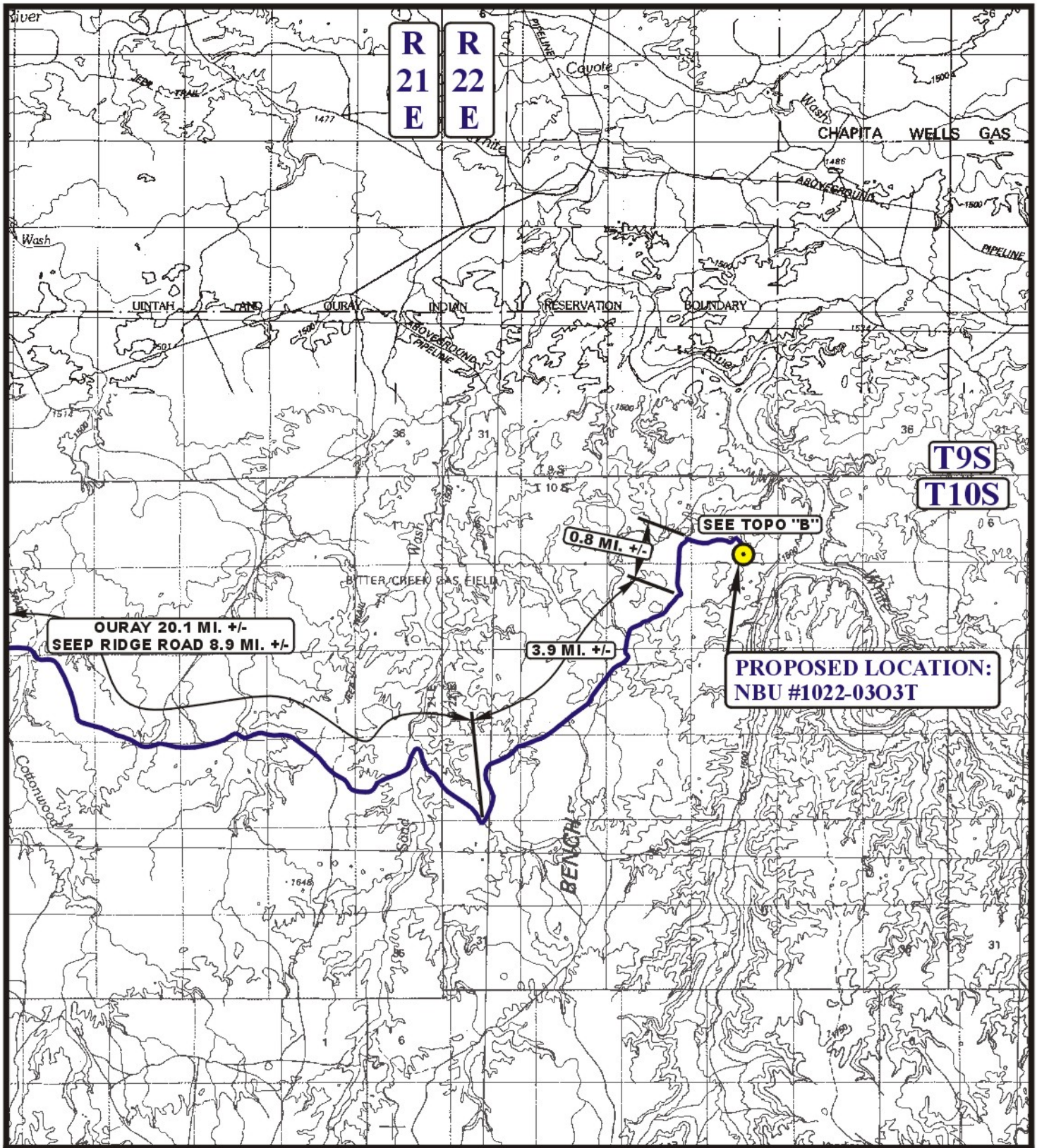
FINISHED GRADE ELEV. AT LOC. STAKE = 5280.0'

UINTAH ENGINEERING & LAND SURVEYING
*85 So. 200 East * Vernal, Utah 84078 * (435) 789-1017*

Kerr-McGee Oil & Gas Onshore LP
NBU #1022-03O3T
SECTION 3, T10S, R22E, S.L.B.&M.

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 14.0 MILES TO THE JUNCTION OF STATE HIGHWAY 88; EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 17.0 MILES TO OURAY, UTAH; PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 11.2 MILES ON THE SEEP RIDGE ROAD TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN LEFT AND PROCEED IN AN EASTERLY, THEN SOUTHEASTERLY DIRECTION APPROXIMATELY 8.9 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHEAST; TURN LEFT AND PROCEED IN AN NORTHEASTERLY DIRECTION APPROXIMATELY 3.9 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTH; TURN LEFT AND PROCEED IN A NORTHERLY DIRECTION APPROXIMATELY 0.8 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN RIGHT AND PROCEED IN AN EASTERLY DIRECTION APPROXIMATELY 0.6 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHEAST; TURN RIGHT AND PROCEED IN A SOUTHEASTERLY, THEN SOUTHWESTERLY DIRECTION APPROXIMATELY 0.2 MILES TO THE EXISTING WELL #290 AND THE PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 56.6 MILES.



LEGEND:

PROPOSED LOCATION

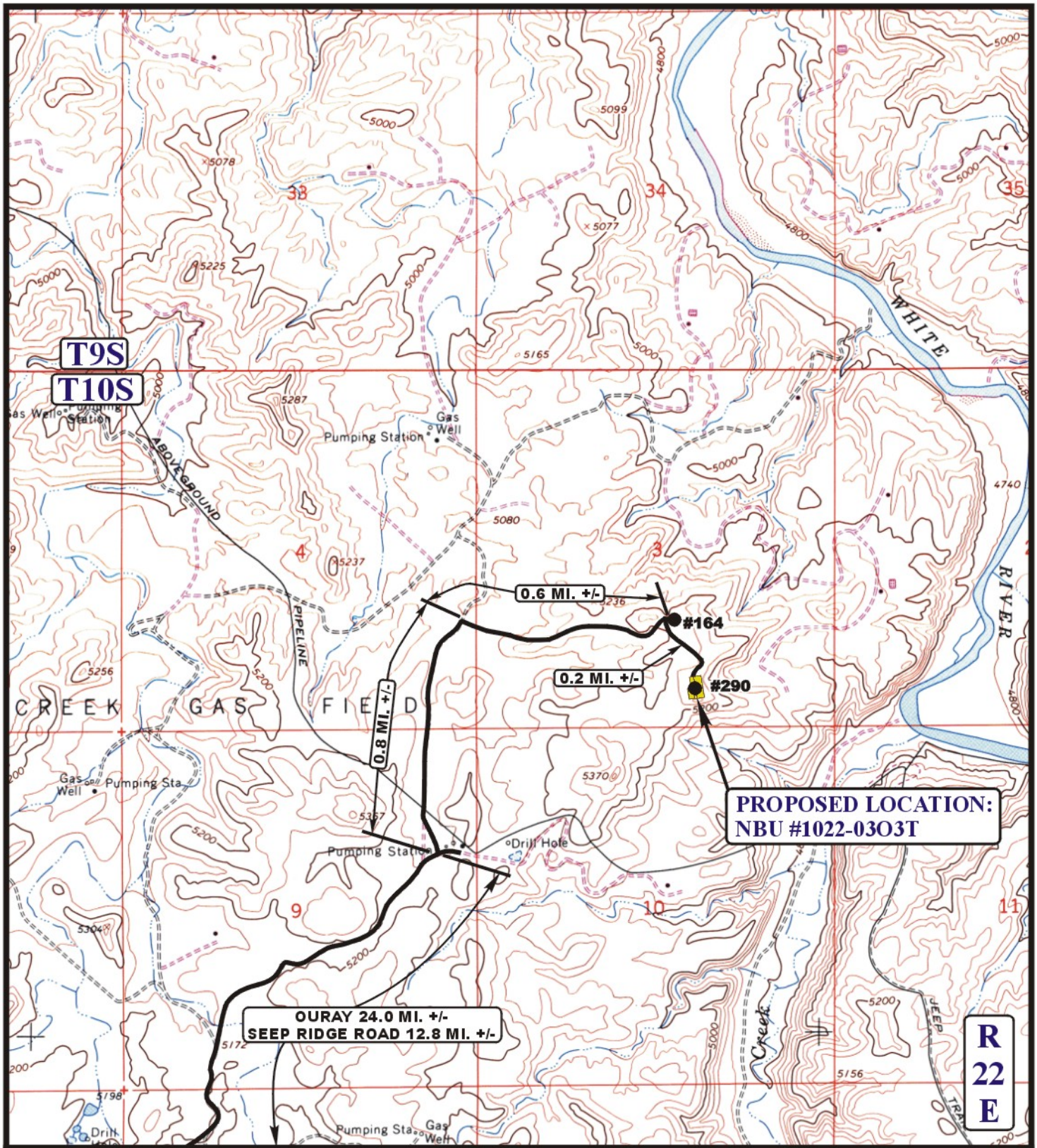
N

Kerr-McGee Oil & Gas Onshore LP

NBU #1022-03O3T
SECTION 3, T10S, R22E, S.L.B.&M.
601' FSL 2047' FEL

Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC MAP	08 MONTH	18 DAY	08 YEAR	A TOPO
SCALE: 1:100,000	DRAWN BY: J.J.	REV: 03-09-09 Z.L.		



LEGEND:

EXISTING ROAD

N

Kerr-McGee Oil & Gas Onshore LP

NBU #1022-03O3T
SECTION 3, T10S, R22E, S.L.B.&M.
601' FSL 2047' FEL

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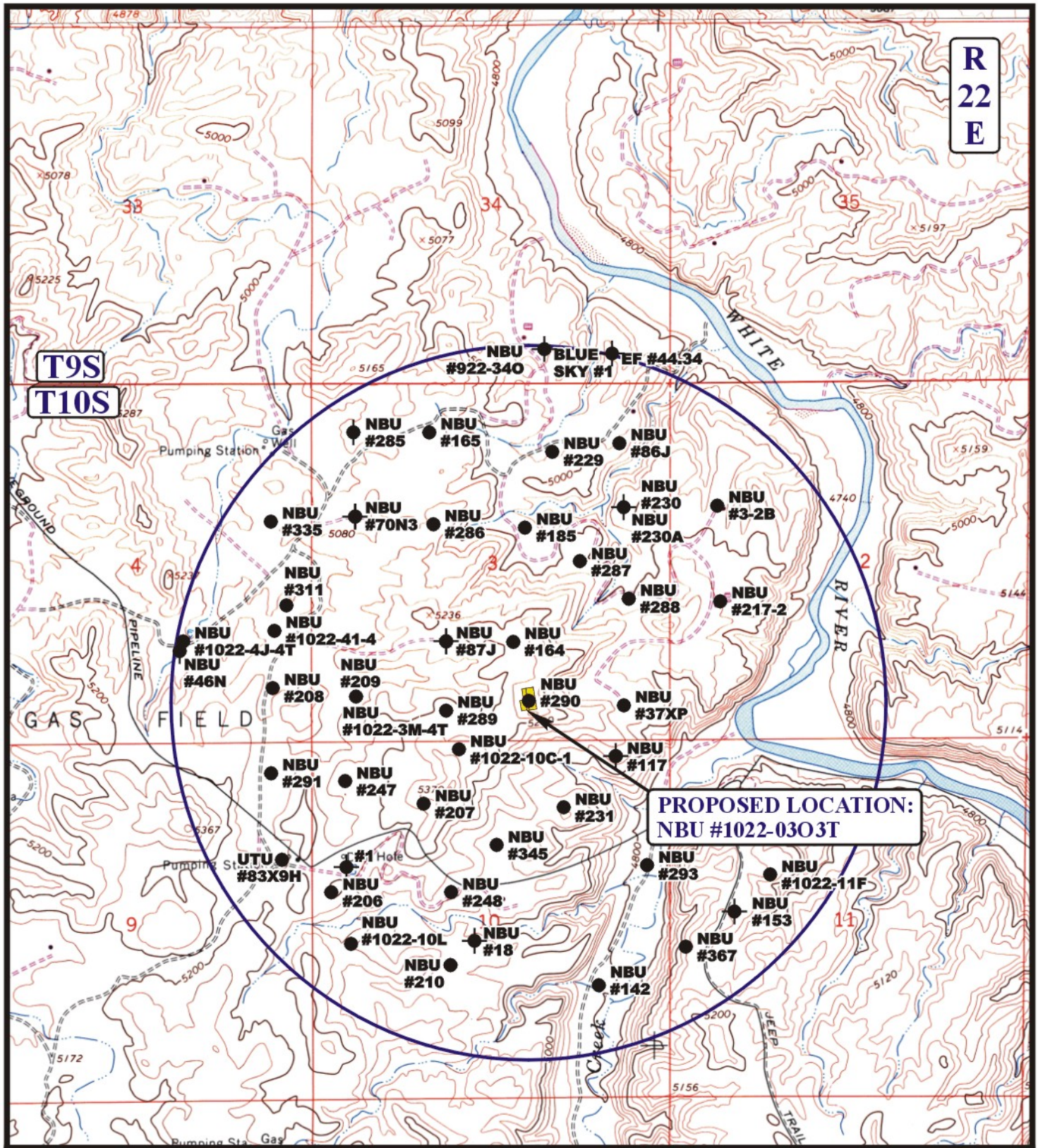
(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC MAP	08 MONTH	18 DAY	08 YEAR	B TOPO
SCALE: 1" = 2000'	DRAWN BY: J.J.	REV: 03-09-09 Z.L.		



LEGEND:

- DISPOSAL WELLS
- PRODUCING WELLS
- SHUT IN WELLS
- WATER WELLS
- ABANDONED WELLS
- TEMPORARILY ABANDONED

N

Kerr-McGee Oil & Gas Onshore LP

NBU #1022-03O3T
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TOPOGRAPHIC MAP	08 MONTH	18 DAY	08 YEAR	C TOPO
SCALE: 1" = 2000'	DRAWN BY: J.J.	REV: 03-09-09 Z.L.		

API Well No: 43047501680000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-01191-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 1022-03O3T

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047501680000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6007 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0601 FSL 2047 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSE Section: 3 Township: 10.0S Range: 22.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 12/24/2009	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	✓ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.

Approved by the Utah Division of Oil, Gas and Mining

Date: December 23, 2009

By:

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Danielle Piernot	720 929-6156	Regulatory Analyst
SIGNATURE N/A		**DATE** 12/22/2009

RECEIVED December 22, 2009

The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047501680000

API: 43047501680000
Well Name: NBU 1022-03O3T
Location: 0601 FSL 2047 FEL QTR SWSE SEC 3 TWNP 100S RNG 220E MER S
Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.
Date Original Permit Issued: 12/24/2008

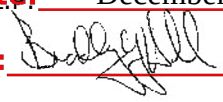
The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

- **If located on private land, has the ownership changed, if so, has the surface agreement been updated?** ○ **Yes** ◉ **No**
- **Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?** ○ **Yes** ◉ **No**
- **Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?** ○ **Yes** ◉ **No**
- **Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?** ○ **Yes** ◉ **No**
- **Has the approved source of water for drilling changed?** ○ **Yes** ◉ **No**
- **Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?** ○ **Yes** ◉ **No**
- **Is bonding still in place, which covers this proposed well?** ◉ **Yes** ○ **No**

Approved by the Utah Division of Oil, Gas and Mining

Signature: Danielle Piernot **Date:** 12/22/2009
Title: Regulatory Analyst **Representing:** KERR-MCGEE OIL & GAS ONSHORE, L.P.

Date: December 23, 2009

By: 

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STATE OF UTAH
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FORM 9

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SIGNATURE N/A		**DATE** 5/18/2009

RECEIVED May 18, 2009

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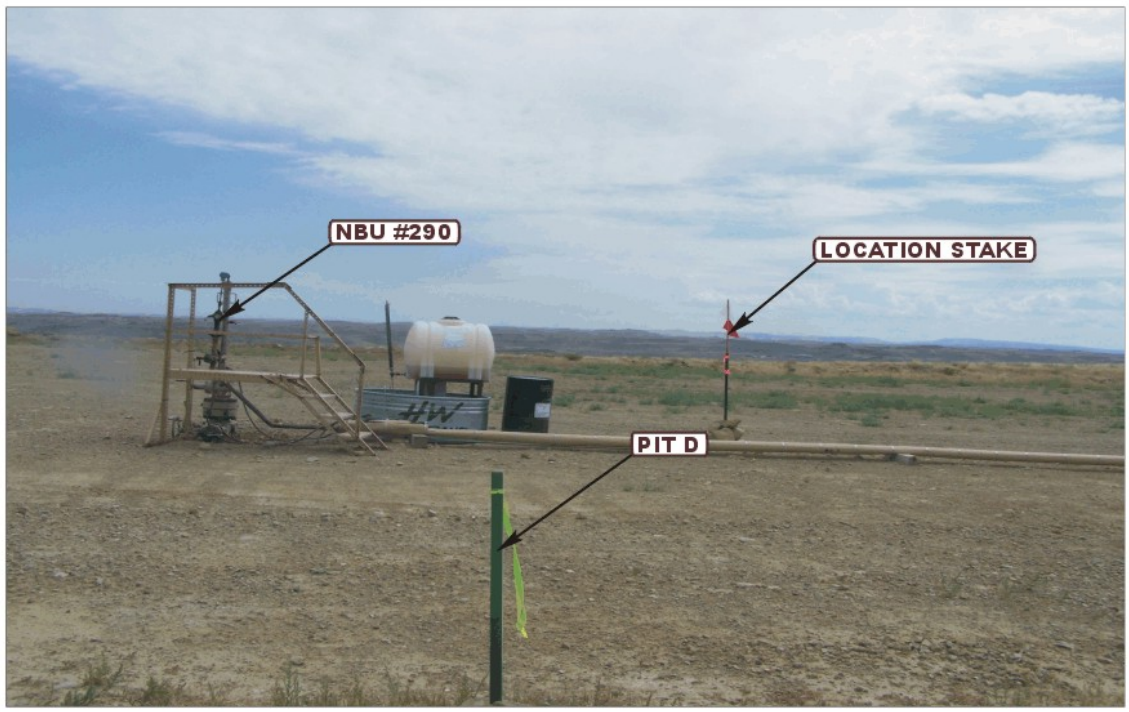

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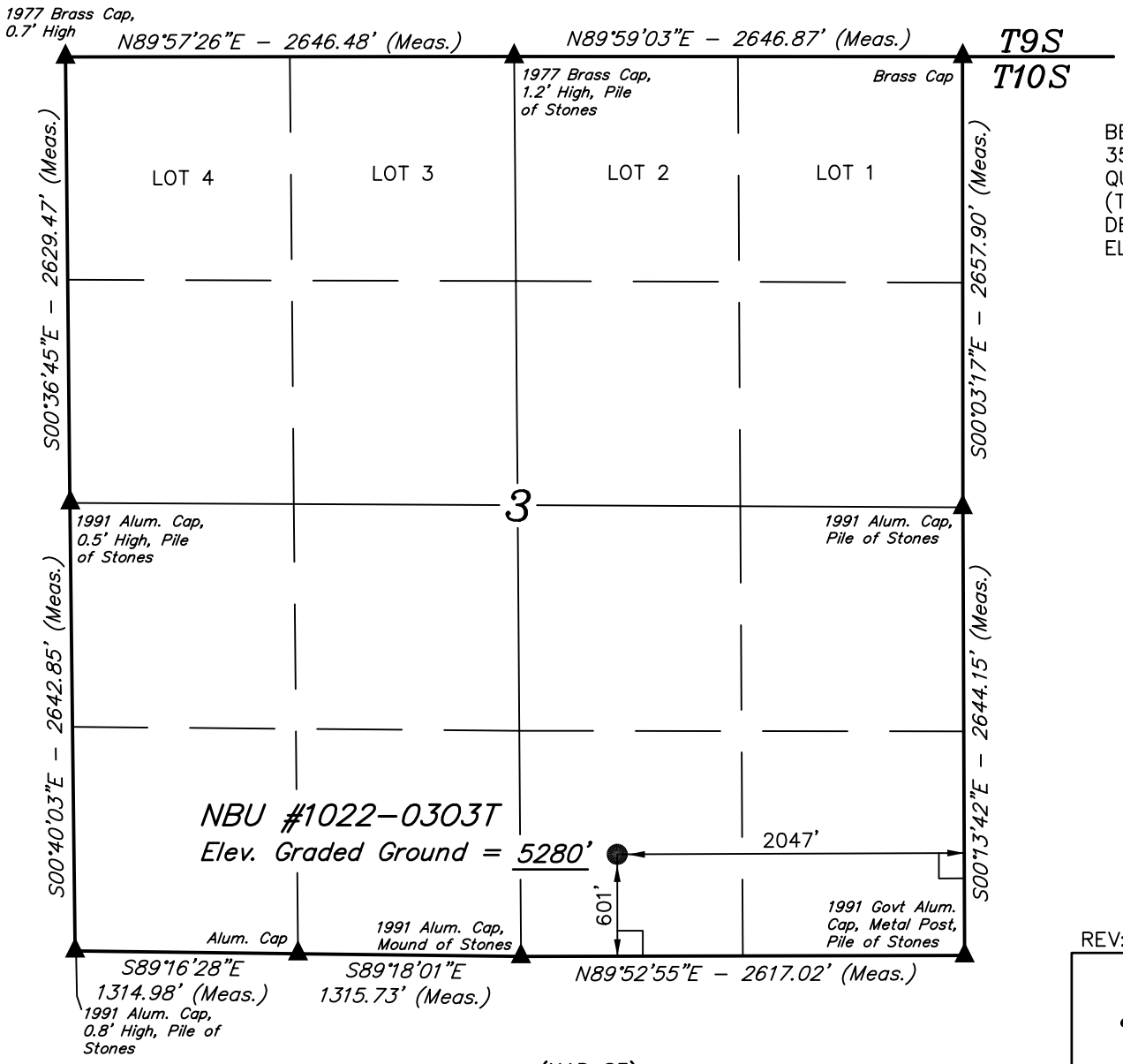

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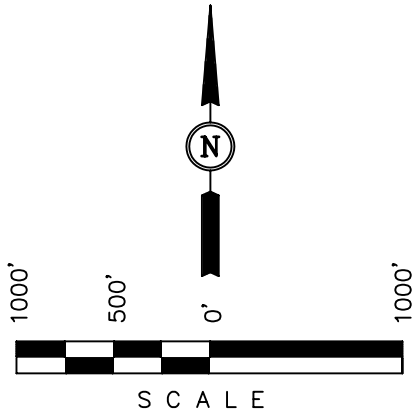

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REGISTRATION NO. 161319
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REV: 03-10-09 K.E.

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Kerr-McGee Oil & Gas Onshore LP

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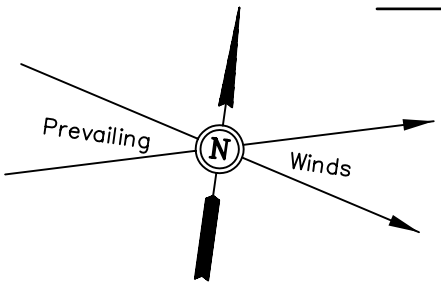

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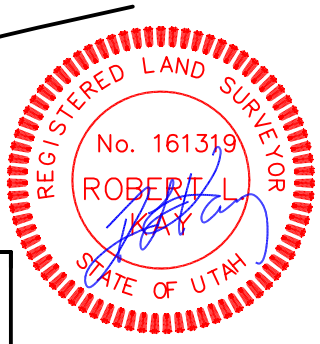

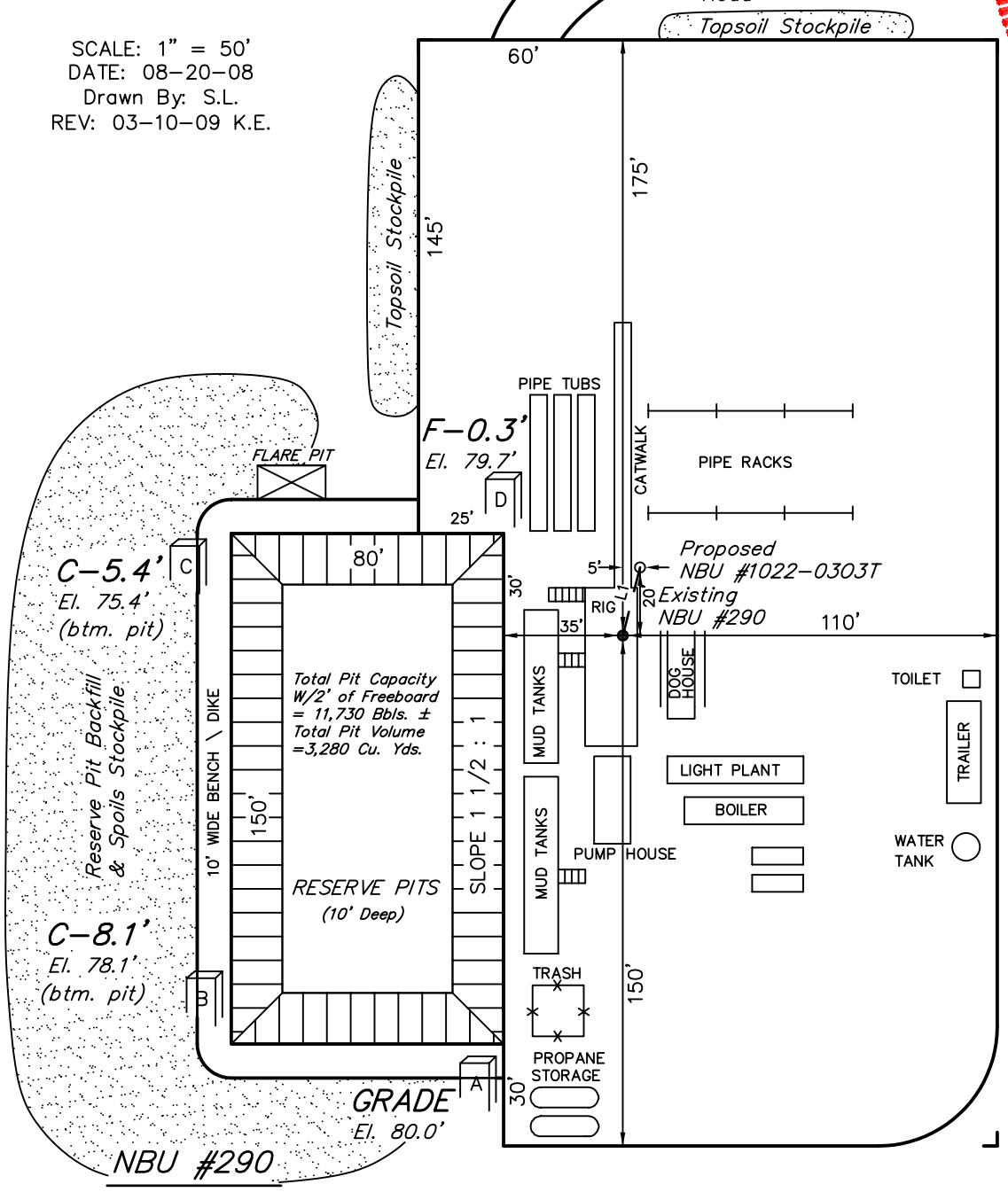

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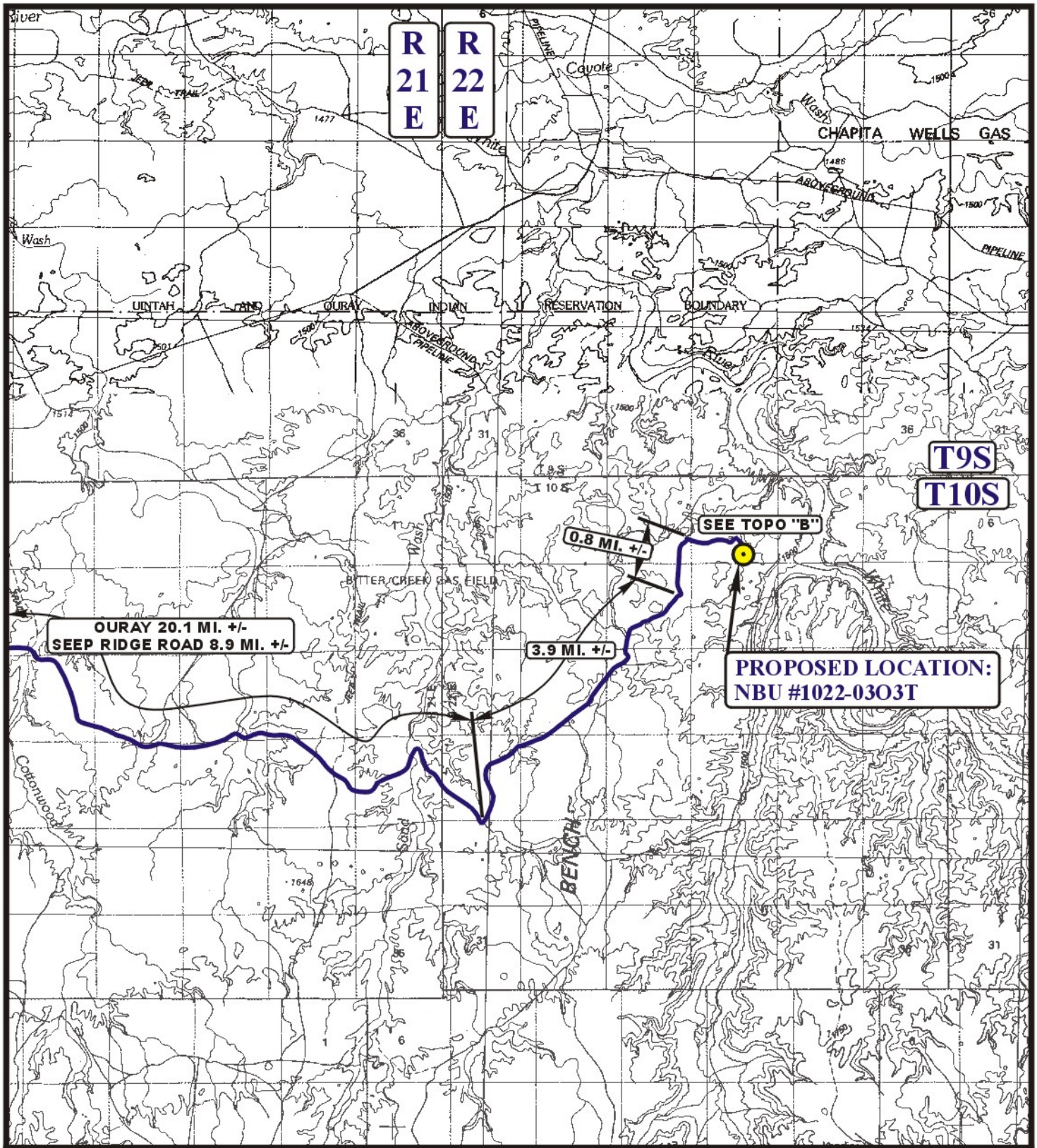
*85 So. 200 East * Vernal, Utah 84078 * (435) 789-1017*

Kerr-McGee Oil & Gas Onshore LP
NBU #1022-03O3T
SECTION 3, T10S, R22E, S.L.B.&M.

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 14.0 MILES TO THE JUNCTION OF STATE HIGHWAY 88; EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 17.0 MILES TO OURAY, UTAH; PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 11.2 MILES ON THE SEEP RIDGE ROAD TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN LEFT AND PROCEED IN AN EASTERLY, THEN SOUTHEASTERLY DIRECTION APPROXIMATELY 8.9 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHEAST; TURN LEFT AND PROCEED IN AN NORTHEASTERLY DIRECTION APPROXIMATELY 3.9 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTH; TURN LEFT AND PROCEED IN A NORTHERLY DIRECTION APPROXIMATELY 0.8 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN RIGHT AND PROCEED IN AN EASTERLY DIRECTION APPROXIMATELY 0.6 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHEAST; TURN RIGHT AND PROCEED IN A SOUTHEASTERLY, THEN SOUTHWESTERLY DIRECTION APPROXIMATELY 0.2 MILES TO THE EXISTING WELL #290 AND THE PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 56.6 MILES.



LEGEND:

PROPOSED LOCATION

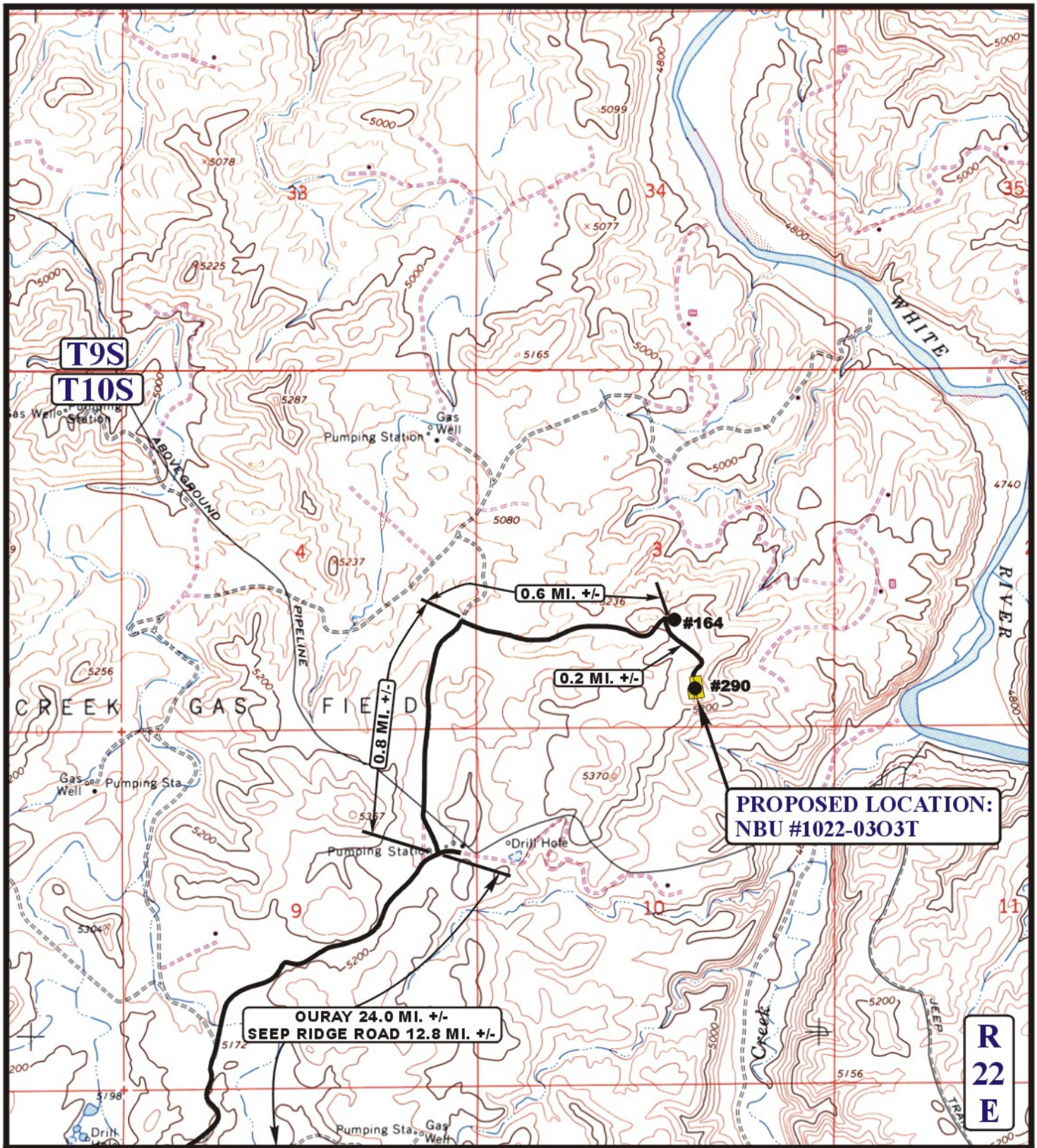
N

Kerr-McGee Oil & Gas Onshore LP

NBU #1022-03O3T
SECTION 3, T10S, R22E, S.L.B.&M.
601' FSL 2047' FEL

Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC MAP	08 MONTH	18 DAY	08 YEAR	A TOPO
SCALE: 1:100,000	DRAWN BY: J.J.	REV: 03-09-09 Z.L.		



LEGEND:

EXISTING ROAD

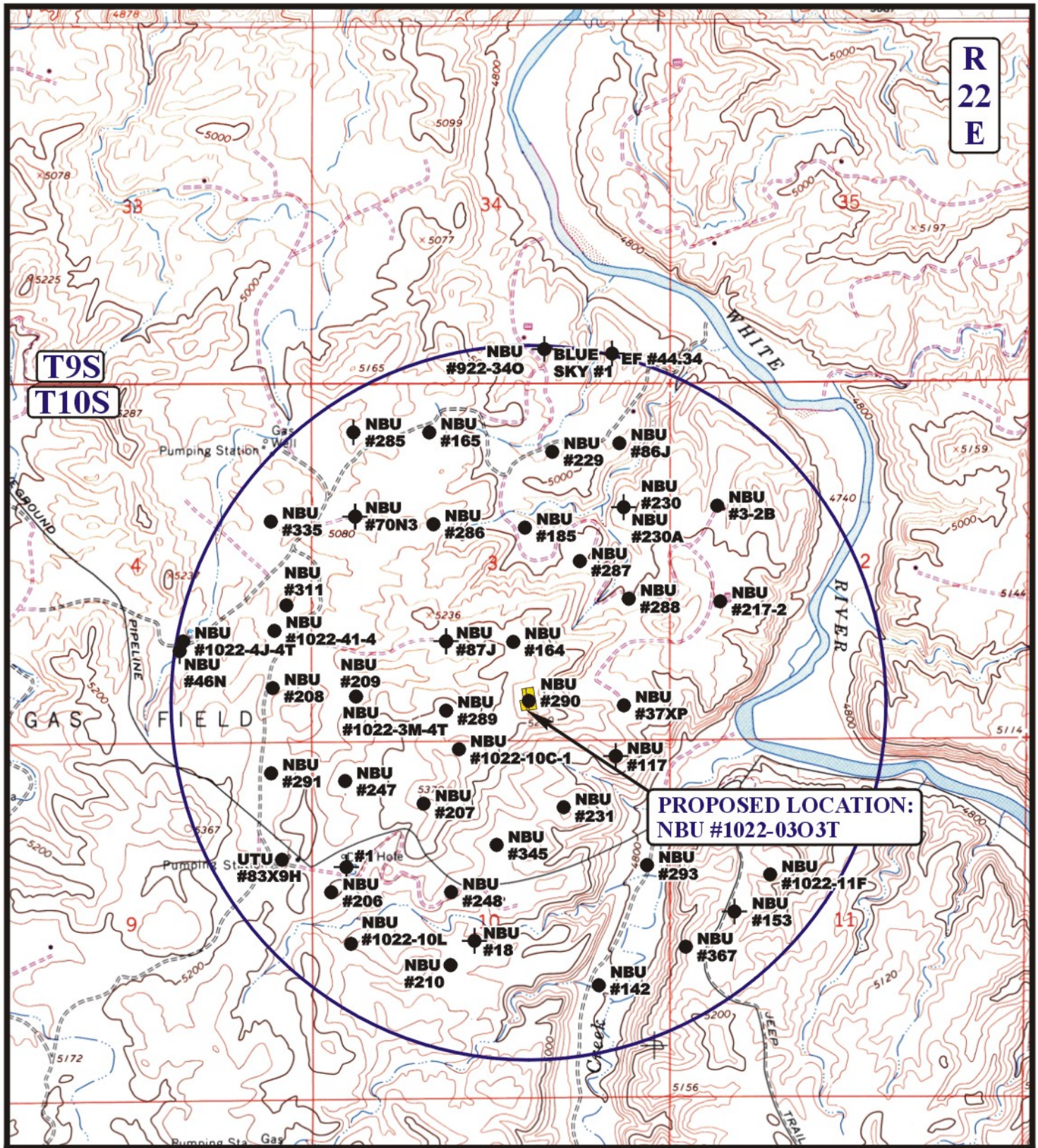
N

Kerr-McGee Oil & Gas Onshore LP

NBU #1022-03O3T
SECTION 3, T10S, R22E, S.L.B.&M.
601' FSL 2047' FEL

Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC MAP	08 MONTH	18 DAY	08 YEAR	B TOPO
SCALE: 1" = 2000'	DRAWN BY: J.J.	REV: 03-09-09 Z.L.		



LEGEND:

- DISPOSAL WELLS
- PRODUCING WELLS
- SHUT IN WELLS
- WATER WELLS
- ABANDONED WELLS
- TEMPORARILY ABANDONED

N

Kerr-McGee Oil & Gas Onshore LP

NBU #1022-03O3T
SECTION 3, T10S, R22E, S.L.B.&M.
601' FSL 2047' FEL

Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC MAP	08 MONTH	18 DAY	08 YEAR	C TOPO
SCALE: 1" = 2000'	DRAWN BY: J.J.	REV: 03-09-09 Z.L.		

API Well No: 43047501680000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-01191-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 1022-03O3T

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047501680000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 **PHONE NUMBER:** 720 929-6007 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0601 FSL 2047 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSE Section: 03 Township: 10.0S Range: 22.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 12/24/2010	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ SPUD REPORT Date of Spud:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
☐ DRILLING REPORT Report Date:	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	✓ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.

Approved by the Utah Division of Oil, Gas and Mining

Date: 12/23/2010

By:

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Danielle Piernot	720 929-6156	Regulatory Analyst
SIGNATURE		**DATE**
N/A		12/20/2010

RECEIVED December 20, 2010

The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047501680000

API: 43047501680000
Well Name: NBU 1022-03O3T
Location: 0601 FSL 2047 FEL QTR SWSE SEC 03 TWNP 100S RNG 220E MER S
Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.
Date Original Permit Issued: 12/24/2008

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

- **If located on private land, has the ownership changed, if so, has the surface agreement been updated?** ○ **Yes** ◉ **No**
- **Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?** ○ **Yes** ◉ **No**
- **Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?** ○ **Yes** ◉ **No**
- **Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?** ○ **Yes** ◉ **No**
- **Has the approved source of water for drilling changed?** ○ **Yes** ◉ **No**
- **Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?** ○ **Yes** ◉ **No**
- **Is bonding still in place, which covers this proposed well?** ◉ **Yes** ○ **No**

Approved by the Utah Division of Oil, Gas and Mining

Signature: Danielle Piernot **Date:** 12/20/2010
Title: Regulatory Analyst **Representing:** KERR-MCGEE OIL & GAS ONSHORE, L.P.

Date: 12/23/2010

By: 

RECEIVED December 20, 2010

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-01191-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 1022-03O3T

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047501680000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6515 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0601 FSL 2047 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSE Section: 03 Township: 10.0S Range: 22.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 12/24/2011	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	✓ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.

Approved by the Utah Division of Oil, Gas and Mining

Date: 01/03/2012

By:

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Danielle Piernot	720 929-6156	Regulatory Analyst
SIGNATURE N/A		**DATE** 12/21/2011

RECEIVED Dec. 21, 2011

The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047501680000

API: 43047501680000
Well Name: NBU 1022-03O3T
Location: 0601 FSL 2047 FEL QTR SWSE SEC 03 TWNP 100S RNG 220E MER S
Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.
Date Original Permit Issued: 12/24/2008

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

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- **Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?** ○ **Yes** ◉ **No**
- **Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?** ○ **Yes** ◉ **No**
- **Has the approved source of water for drilling changed?** ○ **Yes** ◉ **No**
- **Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?** ○ **Yes** ◉ **No**
- **Is bonding still in place, which covers this proposed well?** ◉ **Yes** ○ **No**

Signature: Danielle Piernot **Date:** 12/21/2011
Title: Regulatory Analyst **Representing:** KERR-MCGEE OIL & GAS ONSHORE, L.P.

RECEIVED Dec. 21, 2011

FEDERAL APPROVAL OF THIS ACTION IS NECESSARY

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER:
UTU-01191-A

SUNDRY NOTICES AND REPORTS ON WELLS

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6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:
NATURAL BUTTES

1. TYPE OF WELL
Gas Well

8. WELL NAME and NUMBER:
NBU 1022-3O4BS

2. NAME OF OPERATOR:
KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER:
43047501680000

3. ADDRESS OF OPERATOR:
P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER:
720 929-6526

9. FIELD and POOL or WILDCAT:
NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
0670 FSL 2067 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: SWSE Section: 03 Township: 10.0S Range: 22.0E Meridian: S

COUNTY:
UINTAH

STATE:
UTAH

11.
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 6/1/2012	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	✓ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
☐ SPUD REPORT Date of Spud:	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

The operator is requesting the approval of the following changes to the originally approved APD: 1. Change the Well Name = from NBU 1022-03O3T to NBU 1022-3O4BS / 2. Surface & Bottom Hole Location Change (New Plat is Attached) / a. From = 601 FSL/ 2047 FEL To = 670 FSL/ 2067 FEL / 3. Proposed Total Depth (New Drilling Program Attached) / 4. Surface Hole Size and Casing Grade (New Wellbore Diagram Attached) / 5. Change to a Directional Well (Directional Drilling Survey Attached) / 6. Surface Use Plan of Operation (Updated Plan Attached)

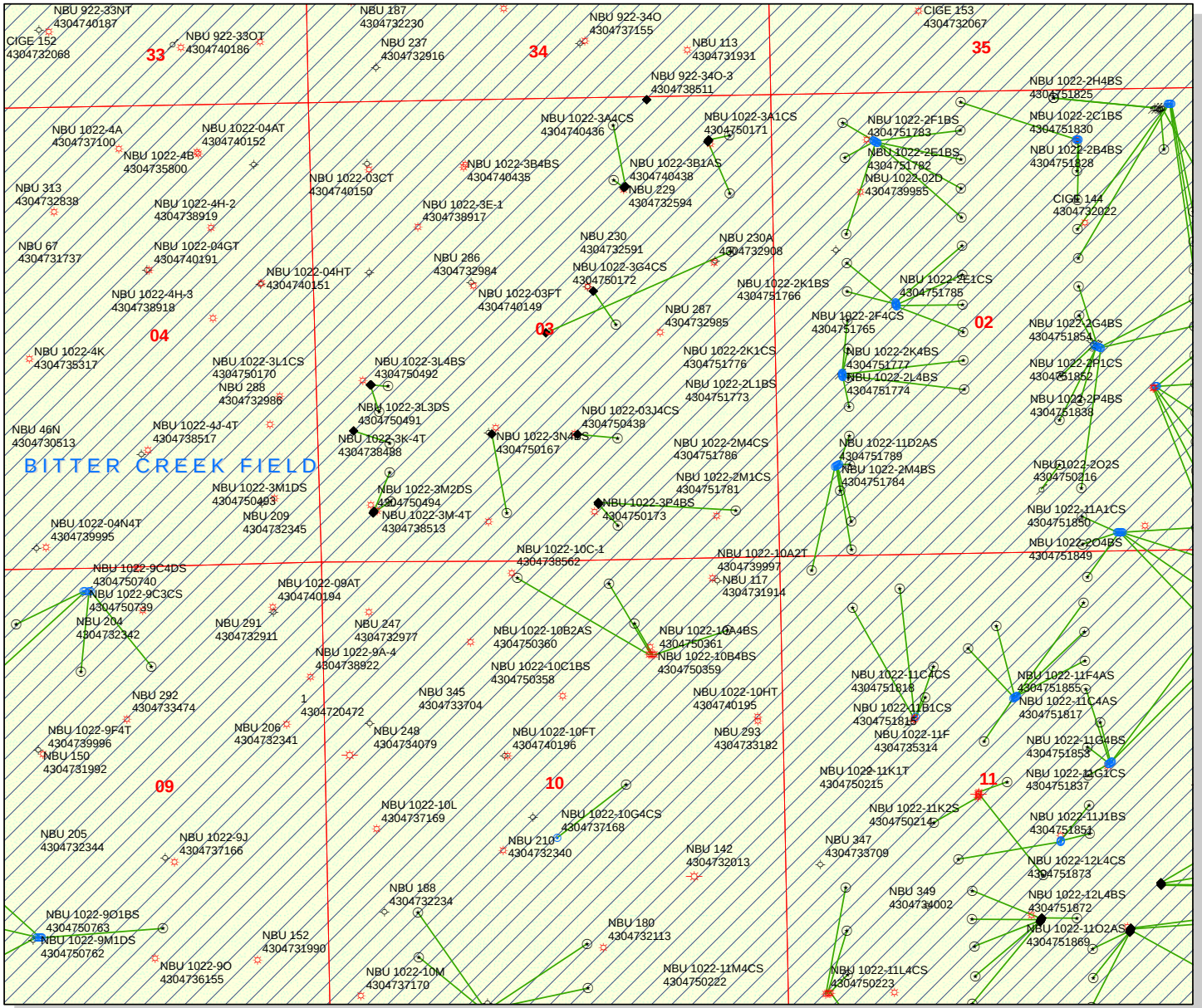
Approved by the Utah Division of Oil, Gas and Mining

Date: June 04, 2012

By:

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Gina Becker	720 929-6086	Regulatory Analyst II
SIGNATURE		**DATE**
N/A		5/21/2012

RECEIVED: May. 21, 2012



API Number: 4304750168

Well Name: NBU 1022-3O4BS

Township T1.0 . Range R2.2 . Section 03

Meridian: SLBM

Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Map Prepared:
Map Produced by Diana Mason

Units
STATUS
- ACTIVE
- EXPLORATORY
- GAS STORAGE
- NF PP OIL
- NF SECONDARY
- PI OIL
- PP GAS
- PP GEOTHERML
- PP OIL
- SECONDARY
- TERMINATED

Fields
STATUS
- Unknown
- ABANDONED
- ACTIVE
- COMBINED
- INACTIVE
- STORAGE
- TERMINATED

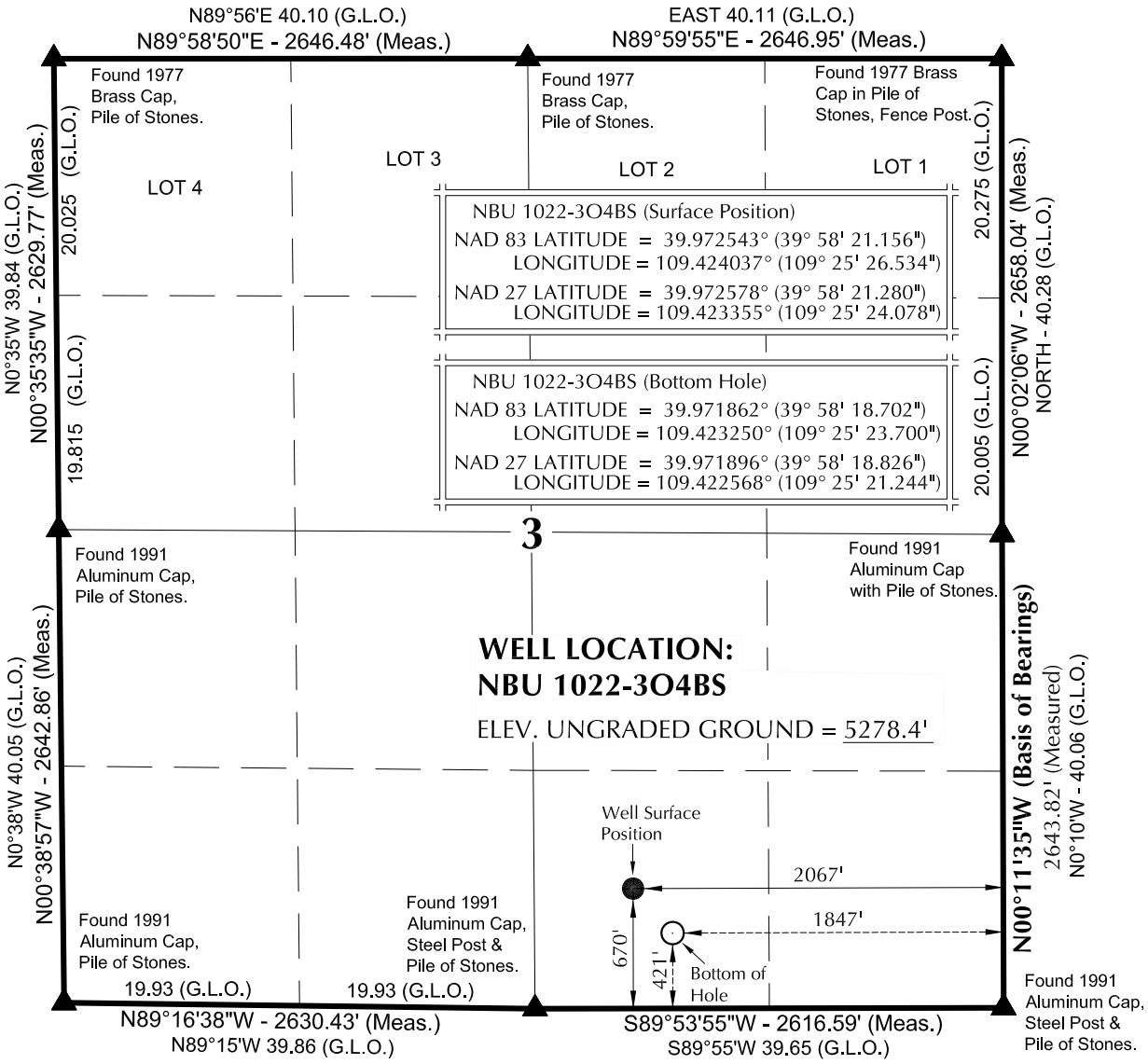
Wells Query
Status
- APD - Aproved Permit
- DRL - Spuded (Drilling Commenced)
- GIW - Gas Injection
- GS - Gas Storage
- LA - Location Abandoned
- LOC - New Location
- OPS - Operation Suspended
- PA - Plugged Abandoned
- PGW - Producing Gas Well
- POW - Producing Oil Well
- RET - Returned APD
- SGW - Shut-in Gas Well
- SOW - Shut-in Oil Well
- TA - Temp. Abandoned
- TW - Test Well
- WDW - Water Disposal
- WIW - Water Injection Well
- WSW - Water Supply Well

1,500 750 0 1,500 Feet

1:14,181

RECEIVED: May. 23, 2012

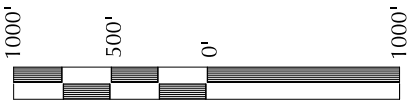
T10S, R22E, S.L.B.&M.



NOTES:

▲ = Section Corners Located

1. Well footages are measured at right angles to the Section Lines.
2. G.L.O. distances are shown in feet or chains. 1 chain = 66 feet.
3. The Bottom of hole bears S41°38'42"E 332.29' from the Surface Position.
4. Bearings are based on Global Positioning Satellite observations.
5. Basis of elevation is Tri-Sta "Two Water" located in the NW ¼ of Section 1, T10S, R21E, S.L.B.&M. The elevation of this Tri-Sta is shown on the Big Pack Mtn NE 7.5 Min. Quadrangle as being 5238'.



SCALE

SURVEYOR'S CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

11-17-11

PROFESSIONAL LAND SURVEYOR
REGISTRATION No. 6028691
STATE OF UTAH

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD: NBU 1022-3O

NBU 1022-3O4BS
WELL PLAT
421' FSL, 1847' FEL (Bottom Hole)
SW ¼ SE ¼ OF SECTION 3, T10S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH.

609 CONSULTING, LLC
2155 North Main Street
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 10-16-11	SURVEYED BY: J.W.	SHEET NO: 2
DATE DRAWN: 11-14-11	DRAWN BY: T.J.R.	2 OF 18
SCALE: 1" = 1000'	Date Last Revised:	

Kerr-McGee Oil & Gas Onshore, LP
WELL PAD – NBU 1022-3O
WELLS - NBU 1022-3O4CS, NBU 1022-3O4BS,
NBU 1022-3P4CS, NBU 1022-3P4BS,
NBU 1022-3P1CS & NBU 1022-3O1CS
Section 3, T10S, R22E, S.L.B.&M.

From the intersection of U.S. Highway 40 and 500 East Street in Vernal, Utah, proceed in an easterly, then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45. Exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles to the junction of the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along the Glen Bench Road approximately 23.8 miles to the intersection of the Bitter Creek Road (County B Road 4120). Exit left and proceed in a southeasterly direction along the Bitter Creek Road approximately 4.0 miles to a Class D County Road to the northeast. Exit left and proceed in a northeasterly direction along the Class D County Road approximately 4.6 miles to a second Class D County Road to the east. Exit right and proceed in an easterly direction along the second Class D County Road approximately 0.5 miles to the proposed NBU 1022-3K well pad. Proceed in an easterly direction through the proposed NBU 1022-3K well pad approximately 480 feet to an existing service road to the east. Proceed in an easterly direction along the service road approximately 0.1 miles to the proposed NBU 1022-3J well pad. Proceed in a southeasterly direction through the NBU 1022-3J well pad approximately 360 feet to the proposed access road to the southeast. Follow road flags in a southeasterly, then southwesterly direction approximately 740 feet to the proposed well location.

Total distance from Vernal, Utah to the proposed well location is approximately 56.7 miles in a southerly direction.

RECEIVED: May. 21, 2012

Kerr-McGee Oil & Gas Onshore. L.P.

NBU 1022-3O4BS

Surface: 670 FSL / 2067 FEL SWSE
BHL: 421 FSL / 1847 FEL SWSE

Section 3 T10S R22E

Uintah County, Utah
Mineral Lease: UTU-01191A

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. & 2. Estimated Tops of Important Geologic Markers:
Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

Formation	Depth	Resource
Uinta	0 - Surface	
Green River	1,288'	
Birds Nest	1,520'	Water
Mahogany	2,055'	Water
Wasatch	4,376'	Gas
Mesaverde	6,702'	Gas
Sego	8,825'	Gas
TVD	8,825'	
TD	8,847'	

3. Pressure Control Equipment (Schematic Attached)

Please refer to the attached Drilling Program

4. Proposed Casing & Cementing Program:

Please refer to the attached Drilling Program

5. Drilling Fluids Program:

Please refer to the attached Drilling Program

6. Evaluation Program:

Please refer to the attached Drilling Program

RECEIVED: May. 21, 2012

7. Abnormal Conditions:

Maximum anticipated bottom hole pressure calculated at 8825' TVD, approximately equals 5,648 psi (0.64 psi/ft = actual bottomhole gradient)

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 3,694 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-
(0.22 psi/ft-partial evac gradient x TVD of next csg point))

8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

9. Variances:

Please refer to the attached Drilling Program.
Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- Blowout Prevention Equipment (BOPE) requirements;
- Mud program requirements; and
- Special drilling operation (surface equipment placement) requirements associated with air drilling.

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

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Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12 1/4 inch hole for the first 200 feet, then will drill a 11inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 11 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 8-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements
The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements
Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements
Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and

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on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Variance for FIT Requirements
KMG also respectfully requests a variance to Onshore Order 2, Section III, Part Bi, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). This well is not an exploratory well and is being drilled in an area where the formation integrity is well known. Additionally, when an FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well.

Conclusion
The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

10. Other Information:

Please refer to the attached Drilling Program.

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KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP		DATE	February 15, 2012	
WELL NAME	**NBU 1022-3O4BS**		TD	8,825' TVD	8,847' MD
FIELD	Natural Buttes	COUNTY Uintah	STATE Utah	FINISHED ELEVATION	5278.4
SURFACE LOCATION	SWSE	670 FSL	2067 FEL	Sec 3	T 10S R 22E
	Latitude:	39.972543	Longitude:	-109.424037	NAD 83
BTM HOLE LOCATION	SWSE	421 FSL	1847 FEL	Sec 3	T 10S R 22E
	Latitude:	39.971862	Longitude:	-109.423250	NAD 83
OBJECTIVE ZONE(S)	Wasatch/Mesaverde				
ADDITIONAL INFO	Regulatory Agencies: BLM (Minerals), BLM (Surface), UDOGM Tri-County Health Dept.				

GEOLOGICAL			MECHANICAL		
LOGS	FORMATION TOPS	DEPTH	HOLE SIZE	CASING SIZE	MUD WEIGHT
		40'		14"	
			12-1/4	8-5/8", 28#, IJ-55, LTC	Air mist
		200'			
			11'	8-5/8", 28#, IJ-55, LTC	Air mist

All water flows encountered while drilling will be reported to the appropriate agencies.

Green River @ 1,288'
Top of Birds Nest @ 1,520'
Mahogany @ 2,055'

Preset f/ GL @ 2,510' TVD

Note: 11" surface hole will usually be drilled ±400' below the lost circulation zone (aka bird's nest). Drilled depth may be ±200' of the estimated set depth depending on the acutal depth of the loss zone.

Wasatch @ 4,376'

Mud logging program TBD
Cased hole logging program from TD - surf csg

Mverde @ 6,702' TVD

Sego @ 8,825' TVD

	7-7/8"	4-1/2" 11.6# I-80 Ultra DQX/LTC csg	Water / Fresh Water Mud 8.3-12.5 ppg

Max anticipated Mud required 12.5 ppg

TD @ 8,825' TVD 8,847' MD

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KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS BURST	COLLAPSE	LTC	DQX TENSION
CONDUCTOR	14"	0-40'							
						3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0 to 2,510	28.00	IJ-55	LTC	2.15	1.60	5.65	N/A
						7,780	6,350	223,000	267,000
PRODUCTION	4-1/2"	0 to 5,000	11.60	I-80	DQX	1.11	1.11		3.22
	4-1/2"	5,000 to 8,847'	11.60	I-80	LTC	1.11	1.11	6.18	

Surface Casing:

(Burst Assumptions: TD = 12.5 ppg) 0.73 psi/ft = frac gradient @ surface shoe

Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 7000 psi) 0.64 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT		YIELD
SURFACE	LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80		1.15
Option 1			+ 0.25 pps flocele					
	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80		1.15
			+ 2% CaCl + 0.25 pps flocele					
SURFACE			**NOTE: If well will circulate water to surface, option 2 will be utilized**					
Option 2	LEAD	2,010'	65/35 Poz + 6% Gel + 10 pps gilsonite	190	35%	11.00		3.82
			+ 0.25 pps Flocele + 3% salt BWOW					
	TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80		1.15
			+ 0.25 pps flocele					
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80		1.15
PRODUCTION	LEAD	3,867'	Premium Lite II +0.25 pps	300	35%	12.00		3.38
			celloflake + 5 pps gilsonite + 10% gel					
			+ 0.5% extender					
	TAIL	4,980'	50/50 Poz/G + 10% salt + 2% gel	1,180	35%	14.30		1.31
			+ 0.1% R-3					

*Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

*Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
PRODUCTION	Float shoe, 1 jt, float collar. 15 centralizers for a Mesaverde and 20 for a Blackhawk well. 1 centralizer on the first 3 joints and one every third joint thereafter.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000' minimum intervals.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

DRILLING ENGINEER: Nick Spence / Danny Showers / Chad Loesel **DATE:**

DRILLING SUPERINTENDENT: Kenny Gathings / Lovel Young **DATE:**

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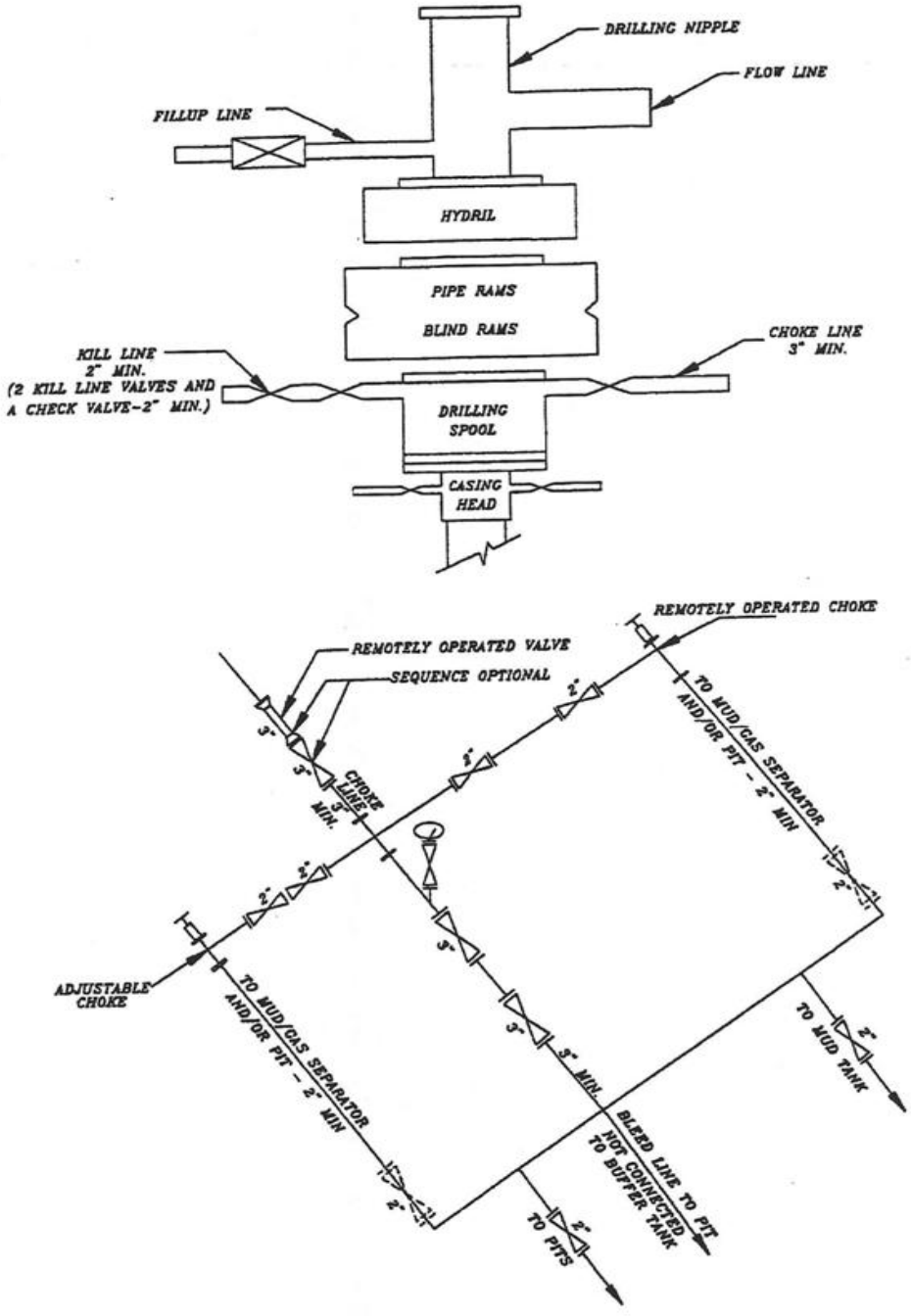
EXHIBIT A
NBU 1022-3O4BS



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

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Scientific Drilling
Rocky Mountain Operations

Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: NBU 1022-3O
Well: NBU 1022-3O4BS
Wellbore: OH
Design: PLAN #1

Anadarko Petroleum Corporation

WELL DETAILS: NBU 1022-3O4BS

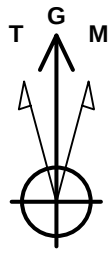
GL 5271 & KB 4 @ 5275.00ft (ASSUMED)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14519964.17	2082155.62	39.972578	-109.423355

DESIGN TARGET DETAILS

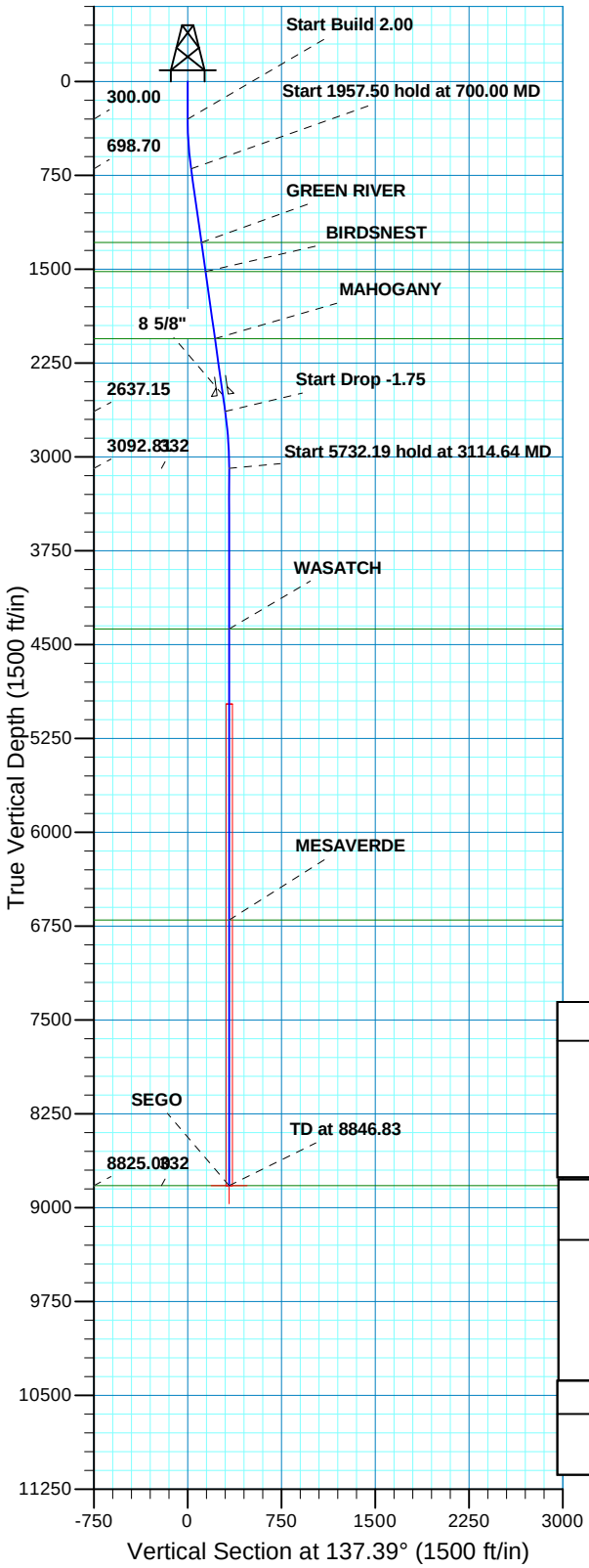
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	8825.00	-244.46	224.90	14519719.71	2082380.52	39.971896	-109.422568	Circle (Radius: 25.00)

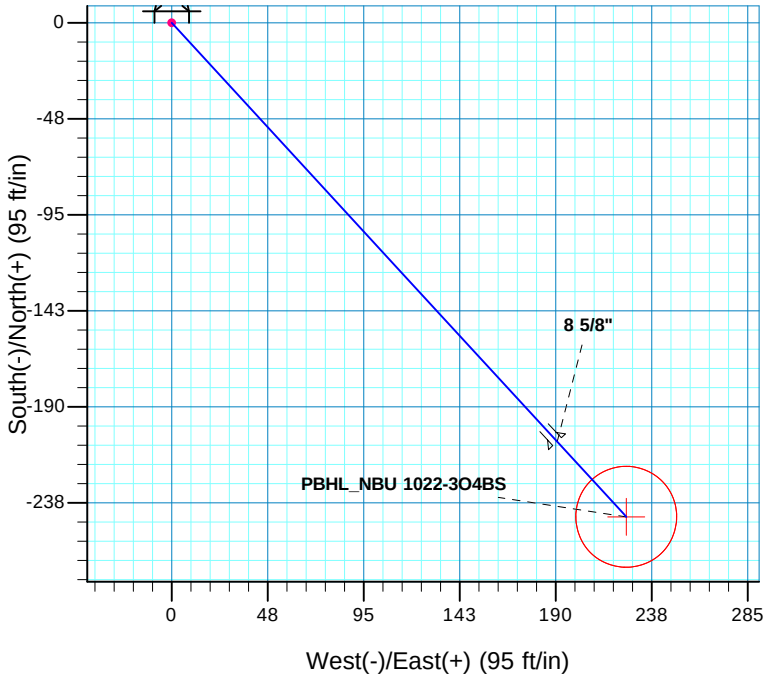
- plan hits target center



Azimuths to Grid North
True North: -1.01°
Magnetic North: 9.94°

Magnetic Field
Strength: 52257.5snT
Dip Angle: 65.84°
Date: 02/08/2012
Model: IGRF2010





SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
700.00	8.00	137.39	698.70	-20.52	18.88	2.00	137.39	27.88	
2657.50	8.00	137.39	2637.15	-221.01	203.33	0.00	0.00	300.31	
3114.64	0.00	0.00	3092.81	-244.46	224.90	1.75	180.00	332.17	
8846.83	0.00	0.00	8825.00	-244.46	224.90	0.00	0.00	332.17	PBHL_NBU 1022-3O4BS

PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N

Geodetic System:	Universal Transverse Mercator (US Survey Feet)
Datum:	NAD 1927 (NADCON CONUS)
Ellipsoid:	Clarke 1866
Zone:	Zone 12N (114 W to 108 W)
Location:	SECTION 3 T10S R22E
System Datum:	Mean Sea Level

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1288.00	1295.09	GREEN RIVER
1520.00	1529.37	BIRDSNEST
2055.00	2069.63	MAHOGANY
4376.00	4397.83	WASATCH
6702.00	6723.83	MESAVERDE
8825.00	8846.83	SEGO

CASING DETAILS

TVD	MD	Name	Size
2505.00	2524.05	8 5/8"	8.625

Plan: PLAN #1 (NBU 1022-3O4BS/OH)

Created By: Gabe Kendall Date: 17:48, February 08 2012

REC

Scientific Drilling
Rocky Mountain Operations

US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N
NBU 1022-3O
NBU 1022-3O4BS

OH

Plan: PLAN #1

Standard Planning Report

08 February, 2012

Anadarko
Petroleum Corporation

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Rocky Mountain Operations

SDI
Planning Report

Anadarko Petroleum Corporation

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well NBU 1022-3O4BS
Company:	US ROCKIES REGION PLANNING	**TVD Reference:**	GL 5271 & KB 4 @ 5275.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	GL 5271 & KB 4 @ 5275.00ft (ASSUMED)
Site:	NBU 1022-3O	**North Reference:**	Grid
Well:	NBU 1022-3O4BS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Project UTAH - UTM (feet), NAD27, Zone 12N

Map System:	Universal Transverse Mercator (US Survey Feet)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Zone 12N (114 W to 108 W)		

Site NBU 1022-3O, SECTION 3 T10S R22E

Site Position:		**Northing:**	14,519,954.37 usft	**Latitude:**	39.972551
From:	Lat/Long	**Easting:**	2,082,157.19 usft	**Longitude:**	-109.423350
Position Uncertainty:	0.00 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	1.01 °

Well NBU 1022-3O4BS, 670 FSL 2067 FEL

Well Position	**+N/-S**	9.81 ft	**Northing:**	14,519,964.17 usft	**Latitude:**	39.972578
	+E/-W	-1.57 ft	**Easting:**	2,082,155.62 usft	**Longitude:**	-109.423355
Position Uncertainty		0.00 ft	**Wellhead Elevation:**		**Ground Level:**	5,271.00 ft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	02/08/12	10.96	65.84	52,258

Design PLAN #1

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	137.39

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
700.00	8.00	137.39	698.70	-20.52	18.88	2.00	2.00	0.00	137.39	
2,657.50	8.00	137.39	2,637.15	-221.01	203.33	0.00	0.00	0.00	0.00	
3,114.64	0.00	0.00	3,092.81	-244.46	224.90	1.75	-1.75	0.00	180.00	
8,846.83	0.00	0.00	8,825.00	-244.46	224.90	0.00	0.00	0.00	0.00	PBHL_NBU 1022-3O

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Scientific Drilling
Rocky Mountain Operations

SDI
Planning Report

Anadarko Petroleum Corporation

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well NBU 1022-3O4BS
Company:	US ROCKIES REGION PLANNING	**TVD Reference:**	GL 5271 & KB 4 @ 5275.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	GL 5271 & KB 4 @ 5275.00ft (ASSUMED)
Site:	NBU 1022-3O	**North Reference:**	Grid
Well:	NBU 1022-3O4BS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
400.00	2.00	137.39	399.98	-1.28	1.18	1.75	2.00	2.00	0.00
500.00	4.00	137.39	499.84	-5.14	4.72	6.98	2.00	2.00	0.00
600.00	6.00	137.39	599.45	-11.55	10.63	15.69	2.00	2.00	0.00
700.00	8.00	137.39	698.70	-20.52	18.88	27.88	2.00	2.00	0.00
Start 1957.50 hold at 700.00 MD									
800.00	8.00	137.39	797.73	-30.76	28.30	41.80	0.00	0.00	0.00
900.00	8.00	137.39	896.76	-41.00	37.72	55.71	0.00	0.00	0.00
1,000.00	8.00	137.39	995.78	-51.24	47.15	69.63	0.00	0.00	0.00
1,100.00	8.00	137.39	1,094.81	-61.49	56.57	83.55	0.00	0.00	0.00
1,200.00	8.00	137.39	1,193.84	-71.73	65.99	97.47	0.00	0.00	0.00
1,295.09	8.00	137.39	1,288.00	-81.47	74.95	110.70	0.00	0.00	0.00
GREEN RIVER									
1,300.00	8.00	137.39	1,292.86	-81.97	75.41	111.38	0.00	0.00	0.00
1,400.00	8.00	137.39	1,391.89	-92.21	84.84	125.30	0.00	0.00	0.00
1,500.00	8.00	137.39	1,490.92	-102.45	94.26	139.22	0.00	0.00	0.00
1,529.37	8.00	137.39	1,520.00	-105.46	97.03	143.31	0.00	0.00	0.00
BIRDSNEST									
1,600.00	8.00	137.39	1,589.94	-112.70	103.68	153.14	0.00	0.00	0.00
1,700.00	8.00	137.39	1,688.97	-122.94	113.11	167.05	0.00	0.00	0.00
1,800.00	8.00	137.39	1,788.00	-133.18	122.53	180.97	0.00	0.00	0.00
1,900.00	8.00	137.39	1,887.02	-143.42	131.95	194.89	0.00	0.00	0.00
2,000.00	8.00	137.39	1,986.05	-153.66	141.37	208.80	0.00	0.00	0.00
2,069.63	8.00	137.39	2,055.00	-160.80	147.94	218.50	0.00	0.00	0.00
MAHOGANY									
2,100.00	8.00	137.39	2,085.08	-163.91	150.80	222.72	0.00	0.00	0.00
2,200.00	8.00	137.39	2,184.10	-174.15	160.22	236.64	0.00	0.00	0.00
2,300.00	8.00	137.39	2,283.13	-184.39	169.64	250.56	0.00	0.00	0.00
2,400.00	8.00	137.39	2,382.16	-194.63	179.07	264.47	0.00	0.00	0.00
2,500.00	8.00	137.39	2,481.18	-204.88	188.49	278.39	0.00	0.00	0.00
2,524.05	8.00	137.39	2,505.00	-207.34	190.75	281.74	0.00	0.00	0.00
8 5/8"									
2,600.00	8.00	137.39	2,580.21	-215.12	197.91	292.31	0.00	0.00	0.00
2,657.50	8.00	137.39	2,637.15	-221.01	203.33	300.31	0.00	0.00	0.00
Start Drop -1.75									
2,700.00	7.26	137.39	2,679.27	-225.16	207.15	305.95	1.75	-1.75	0.00
2,800.00	5.51	137.39	2,778.65	-233.34	214.67	317.07	1.75	-1.75	0.00
2,900.00	3.76	137.39	2,878.32	-239.28	220.14	325.14	1.75	-1.75	0.00
3,000.00	2.01	137.39	2,978.19	-242.98	223.54	330.17	1.75	-1.75	0.00
3,100.00	0.26	137.39	3,078.17	-244.43	224.88	332.14	1.75	-1.75	0.00
3,114.64	0.00	0.00	3,092.81	-244.46	224.90	332.17	1.75	-1.75	0.00
Start 5732.19 hold at 3114.64 MD									
3,200.00	0.00	0.00	3,178.17	-244.46	224.90	332.17	0.00	0.00	0.00
3,300.00	0.00	0.00	3,278.17	-244.46	224.90	332.17	0.00	0.00	0.00
3,400.00	0.00	0.00	3,378.17	-244.46	224.90	332.17	0.00	0.00	0.00
3,500.00	0.00	0.00	3,478.17	-244.46	224.90	332.17	0.00	0.00	0.00
3,600.00	0.00	0.00	3,578.17	-244.46	224.90	332.17	0.00	0.00	0.00
3,700.00	0.00	0.00	3,678.17	-244.46	224.90	332.17	0.00	0.00	0.00
3,800.00	0.00	0.00	3,778.17	-244.46	224.90	332.17	0.00	0.00	0.00

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Rocky Mountain Operations

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Anadarko Petroleum Corporation

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well NBU 1022-3O4BS
Company:	US ROCKIES REGION PLANNING	**TVD Reference:**	GL 5271 & KB 4 @ 5275.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	GL 5271 & KB 4 @ 5275.00ft (ASSUMED)
Site:	NBU 1022-3O	**North Reference:**	Grid
Well:	NBU 1022-3O4BS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
3,900.00	0.00	0.00	3,878.17	-244.46	224.90	332.17	0.00	0.00	0.00
4,000.00	0.00	0.00	3,978.17	-244.46	224.90	332.17	0.00	0.00	0.00
4,100.00	0.00	0.00	4,078.17	-244.46	224.90	332.17	0.00	0.00	0.00
4,200.00	0.00	0.00	4,178.17	-244.46	224.90	332.17	0.00	0.00	0.00
4,300.00	0.00	0.00	4,278.17	-244.46	224.90	332.17	0.00	0.00	0.00
4,397.83	0.00	0.00	4,376.00	-244.46	224.90	332.17	0.00	0.00	0.00
WASATCH									
4,400.00	0.00	0.00	4,378.17	-244.46	224.90	332.17	0.00	0.00	0.00
4,500.00	0.00	0.00	4,478.17	-244.46	224.90	332.17	0.00	0.00	0.00
4,600.00	0.00	0.00	4,578.17	-244.46	224.90	332.17	0.00	0.00	0.00
4,700.00	0.00	0.00	4,678.17	-244.46	224.90	332.17	0.00	0.00	0.00
4,800.00	0.00	0.00	4,778.17	-244.46	224.90	332.17	0.00	0.00	0.00
4,900.00	0.00	0.00	4,878.17	-244.46	224.90	332.17	0.00	0.00	0.00
5,000.00	0.00	0.00	4,978.17	-244.46	224.90	332.17	0.00	0.00	0.00
5,100.00	0.00	0.00	5,078.17	-244.46	224.90	332.17	0.00	0.00	0.00
5,200.00	0.00	0.00	5,178.17	-244.46	224.90	332.17	0.00	0.00	0.00
5,300.00	0.00	0.00	5,278.17	-244.46	224.90	332.17	0.00	0.00	0.00
5,400.00	0.00	0.00	5,378.17	-244.46	224.90	332.17	0.00	0.00	0.00
5,500.00	0.00	0.00	5,478.17	-244.46	224.90	332.17	0.00	0.00	0.00
5,600.00	0.00	0.00	5,578.17	-244.46	224.90	332.17	0.00	0.00	0.00
5,700.00	0.00	0.00	5,678.17	-244.46	224.90	332.17	0.00	0.00	0.00
5,800.00	0.00	0.00	5,778.17	-244.46	224.90	332.17	0.00	0.00	0.00
5,900.00	0.00	0.00	5,878.17	-244.46	224.90	332.17	0.00	0.00	0.00
6,000.00	0.00	0.00	5,978.17	-244.46	224.90	332.17	0.00	0.00	0.00
6,100.00	0.00	0.00	6,078.17	-244.46	224.90	332.17	0.00	0.00	0.00
6,200.00	0.00	0.00	6,178.17	-244.46	224.90	332.17	0.00	0.00	0.00
6,300.00	0.00	0.00	6,278.17	-244.46	224.90	332.17	0.00	0.00	0.00
6,400.00	0.00	0.00	6,378.17	-244.46	224.90	332.17	0.00	0.00	0.00
6,500.00	0.00	0.00	6,478.17	-244.46	224.90	332.17	0.00	0.00	0.00
6,600.00	0.00	0.00	6,578.17	-244.46	224.90	332.17	0.00	0.00	0.00
6,700.00	0.00	0.00	6,678.17	-244.46	224.90	332.17	0.00	0.00	0.00
6,723.83	0.00	0.00	6,702.00	-244.46	224.90	332.17	0.00	0.00	0.00
MESAVERDE									
6,800.00	0.00	0.00	6,778.17	-244.46	224.90	332.17	0.00	0.00	0.00
6,900.00	0.00	0.00	6,878.17	-244.46	224.90	332.17	0.00	0.00	0.00
7,000.00	0.00	0.00	6,978.17	-244.46	224.90	332.17	0.00	0.00	0.00
7,100.00	0.00	0.00	7,078.17	-244.46	224.90	332.17	0.00	0.00	0.00
7,200.00	0.00	0.00	7,178.17	-244.46	224.90	332.17	0.00	0.00	0.00
7,300.00	0.00	0.00	7,278.17	-244.46	224.90	332.17	0.00	0.00	0.00
7,400.00	0.00	0.00	7,378.17	-244.46	224.90	332.17	0.00	0.00	0.00
7,500.00	0.00	0.00	7,478.17	-244.46	224.90	332.17	0.00	0.00	0.00
7,600.00	0.00	0.00	7,578.17	-244.46	224.90	332.17	0.00	0.00	0.00
7,700.00	0.00	0.00	7,678.17	-244.46	224.90	332.17	0.00	0.00	0.00
7,800.00	0.00	0.00	7,778.17	-244.46	224.90	332.17	0.00	0.00	0.00
7,900.00	0.00	0.00	7,878.17	-244.46	224.90	332.17	0.00	0.00	0.00
8,000.00	0.00	0.00	7,978.17	-244.46	224.90	332.17	0.00	0.00	0.00
8,100.00	0.00	0.00	8,078.17	-244.46	224.90	332.17	0.00	0.00	0.00
8,200.00	0.00	0.00	8,178.17	-244.46	224.90	332.17	0.00	0.00	0.00
8,300.00	0.00	0.00	8,278.17	-244.46	224.90	332.17	0.00	0.00	0.00
8,400.00	0.00	0.00	8,378.17	-244.46	224.90	332.17	0.00	0.00	0.00
8,500.00	0.00	0.00	8,478.17	-244.46	224.90	332.17	0.00	0.00	0.00
8,600.00	0.00	0.00	8,578.17	-244.46	224.90	332.17	0.00	0.00	0.00
8,700.00	0.00	0.00	8,678.17	-244.46	224.90	332.17	0.00	0.00	0.00
8,800.00	0.00	0.00	8,778.17	-244.46	224.90	332.17	0.00	0.00	0.00

Scientific Drilling
Rocky Mountain Operations

SDI
Planning Report

Anadarko Petroleum Corporation

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well NBU 1022-3O4BS
Company:	US ROCKIES REGION PLANNING	**TVD Reference:**	GL 5271 & KB 4 @ 5275.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	GL 5271 & KB 4 @ 5275.00ft (ASSUMED)
Site:	NBU 1022-3O	**North Reference:**	Grid
Well:	NBU 1022-3O4BS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,846.83	0.00	0.00	8,825.00	-244.46	224.90	332.17	0.00	0.00	0.00
SEGO - PBHL_NBU 1022-3O4BS									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL_NBU 1022-3O4B - plan hits target center - Circle (radius 25.00)	0.00	0.00	8,825.00	-244.46	224.90	14,519,719.72	2,082,380.52	39.971896	-109.422568

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
2,524.05	2,505.00	8 5/8"	8.625	11.000

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,295.09	1,288.00	GREEN RIVER			
1,529.37	1,520.00	BIRDSNEST			
2,069.63	2,055.00	MAHOGANY			
4,397.83	4,376.00	WASATCH			
6,723.83	6,702.00	MESAVERDE			
8,846.83	8,825.00	SEGO			

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
300.00	300.00	0.00	0.00	Start Build 2.00
700.00	698.70	-20.52	18.88	Start 1957.50 hold at 700.00 MD
2,657.50	2,637.15	-221.01	203.33	Start Drop -1.75
3,114.64	3,092.81	-244.46	224.90	Start 5732.19 hold at 3114.64 MD
8,846.83	8,825.00	-244.46	224.90	TD at 8846.83

RECEIVED: May. 21, 2012

Kerr-McGee Oil & Gas Onshore. L.P.

NBU 1022-3O Pad

API #	**NBU 1022-3O1CS**			
	Surface:	709 FSL / 2073 FEL	SWSE	Lot
	BHL:	746 FSL / 1819 FEL	SWSE	Lot
API #4304750168	**NBU 1022-3O4BS**			
	Surface:	670 FSL / 2067 FEL	SWSE	Lot
	BHL:	421 FSL / 1847 FEL	SWSE	Lot
API #	**NBU 1022-3O4CS**			
	Surface:	660 FSL / 2065 FEL	SWSE	Lot
	BHL:	106 FSL / 1825 FEL	SWSE	Lot
API #	**NBU 1022-3P1CS**			
	Surface:	699 FSL / 2072 FEL	SWSE	Lot
	BHL:	909 FSL / 494 FEL	SESE	Lot
API #4304750173	**NBU 1022-3P4BS**			
	Surface:	689 FSL / 2070 FEL	SWSE	Lot
	BHL:	575 FSL / 496 FEL	SESE	Lot
API #	**NBU 1022-3P4CS**			
	Surface:	680 FSL / 2069 FEL	SWSE	Lot
	BHL:	256 FSL / 500 FEL	SESE	Lot

This Surface Use Plan of Operations (SUPO) or 13-point plan provides site-specific information for the above-referenced wells.

In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, these wells will be directionally drilled. Refer to Topo Map A for directions to the location and Topo Maps A and B for location of access roads within a 2-mile radius.

An on-site meeting was held on December 6, 2011. Present were:

- David Gordon, Tyler Cox - BLM;
- Jacob Dunham - 609 Consulting;
- John Slaugh, Mitch Batty - Timberline Engineering & Land Surveying, Inc.; and
- Gina Becker, Charles Chase, Doyle Holmes, Casey McGee, Grizz Oleen, Sheila Wopsock - Kerr-McGee

A. Existing Roads:

Existing roads consist of county and improved/unimproved access roads (two-tracks). In accordance with Onshore Order #1, Kerr-McGee will, in accordance with BMPs, improve or maintain existing roads in a condition that is the same as or better than before operations began. New or reconstructed proposed access roads are discussed in Section B.

The existing roads will be maintained in a safe and usable condition. Maintenance for existing roads will continue until final abandonment and reclamation of well pads and/or other facilities, as applicable. Road maintenance will include, but is not limited to, blading, ditching, and/or culvert installation and cleanout. To ensure safe operating conditions, gravel surfacing will be performed where excessive rutting or erosion may occur. Dust control will be performed as necessary to ensure safe operating conditions.

Roads, gathering lines and electrical distribution lines will occupy common disturbance corridors where possible. Where available, roadways will be used as the staging area and working space for installation of gathering lines. All

RECEIVED: May. 21, 2012

disturbances located in the same corridor will overlap each other to the maximum extent possible, while maintaining safe and sound construction and installation practices. Unless otherwise approved or requested in site specific documents, in no case will the maximum disturbance widths of the access road and utility corridors exceed the widths specified in Part D of this document.

Please refer to Topo B, for existing roads.

B. New or Reconstructed Access Roads:

All new or reconstructed roads will be located, designed, and maintained to meet the standards of the BLM. BMPs. Described in the BLM's Surface Operating Standards for Oil and Gas Exploration and Development, 4th Edition (Gold Book) (USDI and USDA, 2007) and/or BLM Manual Section 9113 (1985) will be considered in consultation with the BLM in the design, construction, improvement and maintenance of all new or reconstructed roads. If a new road would cross a water of the United States, Kerr-McGee will adhere to the requirements of applicable Nationwide Permits of the Department of Army Corps of Engineers.

Each new well pad or pad expansion may require construction of a new access road and/or de-commissioning of an older road. Plans, routes, and distances for new roads and road improvements are provided in design packages, exhibits and maps for a project. Project-specific maps are submitted to depict the locations of existing, proposed, and/or decommissioned and include the locations for supporting structures, including, but not limited to, culverts, bridges, low water crossings, range infrastructure, and haul routes, as per OSO 1. Designs for cuts and fills, including spoils source and storage areas, are provided with the road designs, as necessary.

Where safety objectives can be met. As applicable, Kerr-McGee may use unimproved and/or two-track roads for lease operations, to lessen total disturbance.

Road designs will be based on the road safety requirements, traffic characteristics, environmental conditions, and the vehicles the road is intended to carry. Generally, newly constructed unpaved lease roads will be crowned and ditched with the running surfaces of the roads approximately 12-18 feet wide and a total road corridor width not to exceed 45 feet, except where noted in the road design for a specific project. Maximum grade will generally not exceed 8%. Borrow ditches will be back sloped 3:1 or less. Construction BMPs will be employed to control onsite and offsite erosion.

Where topography would direct storm water runoff to an access road or well pad, drainage ditches or other common drainage control facilities, such as V- or wing-ditches, will be constructed to divert surface water runoff. Drainage features, including culverts, will be constructed or installed prior to commencing other operations, including drilling or facilities placement. Riprap will be placed at the inlet and outlet at the culvert(s), as necessary.

Prior to construction, new access road(s) will be staked according to the requirements of OSO 1. Construction activity will not be conducted using frozen or saturated materials or during periods when significant watershed damage (e.g. rutting, extensive sheet soil erosion, formation of rills/gullies, etc.) is likely to occur. Vegetative debris will not be placed in or under fill embankments.

New road maintenance will include, but is not limited to, blading, ditching, culvert installation and cleanout, gravel surfacing where excessive rutting or erosion may occur and dust control, as necessary to ensure safe operating conditions. All vehicular traffic, personnel movement, construction/restoration operations will be confined to the approved area and to existing roadways and/or access routes.

Snow removal will be conducted on an as-needed basis to accommodate safe travel. Snow removal will occur as necessary throughout the year, as will necessary drainage ditch construction. Removed snow may be stored on permitted well pads to reduce hauling distances and/or at the aerial extent of approved disturbance boundaries to facilitate snow removal for the remainder of the season.

If a county road crossing or encroachment permit is needed, it will be obtained prior to construction.

RECEIVED: May. 21, 2012

The following segments are "on-lease"

±740' (0.14 miles) – Section 3 T10S R22E (SW/4 SE/4) – On-lease UTU01191, from the eastern edge of the pad re-routing northwesterly to merge with the existing access road. Please refer to Topo B and requested Engineered Road Designs. (Attached to APD)

C. Location of Existing Wells:

A) Refer to Topo Map C.

D. Location of Existing and/or Proposed Facilities:

This pad will expand the existing pad for the NBU 290, which is a producing gas well according to Utah Division of Oil, Gas and Mining (UDOGM) records on February 14, 2012. Gathering (pipeline) infrastructure will be utilized to collect and transport gas and fluids from the wells which are owned and operated by Kerr McGee Oil and Gas Onshore LP (Kerr-McGee).

Should the well(s) prove productive, production facilities will be installed on the disturbed portion of each well pad. A berm will be constructed completely around production components (typically excluding dehy's and/or separators) that contain fluids (i.e. production tanks, produced liquids tanks). The berms will generally be constructed of compacted subsoil or corrugated metal, and will hold the capacity of the largest tank and have sufficient freeboard to accomodate a 25 year rainfall event. This includes pumping units. Aboveground structures constructed or installed onsite for 6 months or longer, will be painted a flat, non-reflective, earth-tone color chosen at the onsite in coordination with the BLM (typically Shadow Gray). A production facility layout is provided as part of a project-specific APD, ROW or NOS submission.

GAS GATHERING

Please refer to Exhibit A and Topo D2- Pad and Pipeline Detail.

The gas gathering pipeline material: Steel line pipe. Surface = Bare pipe. Buried = Coated with fusion bonded epoxy coating (or equivalent). The total gas gathering pipeline distance from the meter to the tie in point is ±6,185' and the individual segments are broken up as follows:

The following segments are "onlease", no ROW needed.

±430' (0.08 miles) – Section 3 T10S R22E (SW/4 SE/4) – On-lease UTU-01191A, BLM surface, New 10" buried gas gathering pipeline from the meter to the edge of the pad. Please refer to Topo D2 - Pad and Pipeline Detail.

±915' (0.17 miles) – Section 3 T10S R22E (SW/4 SE/4) – On-lease UTU-01191A, BLM surface, New 10" buried gas gathering pipeline from the edge of the pad to tie-in to the proposed 10" gas gathering pipeline at the NBU 1022-3J intersection. Please refer to Exhibit A, Line 6.

±610' (0.12 miles) – Section 3 T10S R22E (NE/4 SW/4) – On-lease UTU-01191, BLM surface, New 10" buried gas gathering pipeline from the NBU 1022-3J intersection to tie-in to the proposed 16" buried gas gathering pipeline at the NBU 1022-3K pad. This pipeline will be used concurrently with the NBU 1022-3J Pad. Please refer to Exhibit A, Line 4.

±2, 055' (0.39 miles) – Section 3 T10S R22E (N/2 SW/4) – On-lease UTU-01191, BLM surface, New 16" buried gas gathering pipeline from the NBU 1022-3K to the NBU 1022-3M intersection. This pipeline will be used concurrently with the NBU 1022-3J and NBU 1022-3K pads. Please refer to Exhibit A, Line 3.

±1,640' (0.31 miles) – Section 3 T10S R22E (NW/4 SW/4) – On-lease UTU-01191, BLM surface, New 16" buried gas gathering pipeline from the NBU 1022-3M intersection with a short westerly bend into 10S, 22E, Section 4, then northeasterly to the NBU 1022-3L intersection in 10S, 22E, Section 3. This pipeline will be used concurrently with the NBU 1022-3J, NBU 1022-3K and NBU 1022-3M pads. Please refer to Exhibit A, Line 2.

RECEIVED: May. 21, 2012

±535' (0.1 miles) – Section 3 T10S R22E (NW/4 SW/4) – On-lease UTU-01191, BLM surface, New 16" buried gas gathering pipeline from the NBU 1022-3L intersection to tie-in to the approved 16" gas pipeline located in 10S, 22E, Section 4. This pipeline will be used concurrently with the NBU 1022-3J, NBU 1022-3K, NBU 1022-3M and NBU 1022-3L pads. Please refer to Exhibit A, Line 1.

LIQUID GATHERING

Please refer to Exhibit B and Topo D2- Pad and Pipeline Detail.

The total liquid gathering pipeline distance from the separator to the tie in point is ±6,185' and the individual segments are broken up as follows:

The following segments are "onlease", no ROW needed.

±430' (0.08 miles) – Section 3 T10S R22E (SW/4 SE/4) – On-lease UTU-01191A, BLM surface, New 6" buried liquid gathering pipeline from the separator to the edge of the pad. Please refer to Topo D Pad and Pipeline Detail.

±915' (0.17 miles) – Section 3 T10S R22E (SW/4 SE/4) – On-lease UTU-01191A, BLM surface, New 6" buried liquid gathering pipeline from the edge of the pad to tie-in to the NBU 1022-3J intersection. Please refer to Exhibit B, Line 6.

±610' (0.12 miles) – Section 3 T10S R22E (NE/4 SW/4) – On-lease UTU-01191, BLM surface, New 6" buried liquid gathering pipeline from the NBU 1022-3J intersection to tie-in to the proposed 6" buried liquid gathering pipeline at the NBU 1022-3K pad. This pipeline will be used concurrently with the NBU 1022-3J Pad. Please refer to Exhibit B, Line 4.

±2,055' (0.39 miles) – Section 3 T10S R22E (N/2 SW/4) – On-lease UTU-01191, BLM surface, New 6" buried liquid gathering pipeline from the NBU 1022-3K to the NBU 1022-3M intersection. This pipeline will be used concurrently with the NBU 1022-3J and NBU 1022-3K pads. Please refer to Exhibit B, Line 3.

±1,640' (0.31 miles) – Section 3 T10S R22E (NW/4 SW/4) – On-lease UTU-01191, BLM surface, New 6" buried liquid gathering pipeline from the NBU 1022-3M intersection with a short westerly bend into 10S, 22E, Section 4, then northeasterly to the NBU 1022-3L intersection in 10S, 22E, Section 3. This pipeline will be used concurrently with the NBU 1022-3J, NBU 1022-3K and NBU 1022-3M pads. Please refer to Exhibit B, Line 2.

±535' (0.1 miles) – Section 3 T10S R22E (NW/4 SW/4) – On-lease UTU-01191, BLM surface, New 6" buried liquid gathering pipeline from the NBU 1022-3L intersection to tie-in to the approved liquid pipeline located in 10S, 22E, Section 4. This pipeline will be used concurrently with the NBU 1022-3J, NBU 1022-3K, NBU 1022-3M and NBU 1022-3L pads. Please refer to Exhibit B, Line 1.

Pipeline Gathering Construction

Gathering (pipeline) infrastructure will be utilized to collect and transport gas and fluids from the wells which are owned and operated by Kerr McGee. Gas gathering pipeline(s,) gas lift, or liquids pipelines may be constructed to lie on the surface or be buried. Where the pipeline is adjacent to the road or well pad, the road and/or well pad will be utilized for construction activities and staging. The area of disturbance during construction from the edge of road or well pad will typically be 30' in width. Where pipelines run cross country, the width of disturbance will typically be 45 ft for buried lines and 30 ft for surface lines. In addition, Kerr-McGee requests for a permanent 30' distrubance width that will be maintained for the portion adjacent to the road. The need for the 30' permanent distrubance width is for maintenance and repairs. Cross country permanent distrubance width also are required to be 30ft.

Above-ground installation will generally not require clearing of vegetation or blading of the surface, except where safety considerations necessitate earthwork. In some surface pipeline installation instances pipe cannot be constructed where it will lay. In these cases where an above-ground pipeline is constructed parallel and adjacent to a road, it will be welded/fused on the road and then lifted from the road to the pipeline route. In other cases where a pipeline route is not parallel and adjacent to a road (cross-country between sites), it will be welded/fused in place at a well pad, access road, or designated work area and pulled between connection locations with a suitable piece of equipment.

RECEIVED: May. 21, 2012

Buried pipelines will generally be installed parallel and adjacent to existing and/or newly constructed roads and within the permitted disturbance corridor. Buried pipelines may vary from 2 inches (typically fuel gas lines) to 24 inches (typically transportation lines) in diameter, but 6 to 16 inches is typical for a buried gas line. The diameter of liquids pipelines may vary from 2 inches to 12 inches, but 6 inches is the typical diameter. Gas lift lines may vary from 2 to 12 inches in diameter, but 6-inch diameter pipes are generally used for gas lift. If two or more pipelines are present (gas gathering, gas lift, and fluids), they will share a common trench where possible.

Typically, to install a buried pipeline, topsoil will be removed, windrowed and placed on the non-working side of the route for later reclamation. Because working room is limited, the spoil may be spread out across the working side and construction will take place on the spoil. The working side of the corridor will be used for pipe stringing, bending, welding and equipment travel. Small areas on the working side displaying ruts or uneven ground will be groomed to facilitate the safe passage of equipment. After the pipelines are installed, spoil will be placed back into the trench, and the topsoil will be redistributed over the disturbed corridor prior to final reclamation. Typical depth of the trench will be 6 feet, but depths may vary according to site-specific conditions (presence of bedrock, etc.). The proposed trench width for the pipeline would range from 18-48 inches.

The pipeline will be welded along the proposed route and lowered into place. Trenching equipment will cut through the soil or into the bedrock and create good backfill, eliminating the need to remove large rocks. The proposed buried pipeline will be visually and radiographically inspected and the entire pipeline will be pneumatically or hydrostatically tested before being placed into service. Routine vehicle traffic will be prevented from using pipeline routes as travel ways by posting signs at the route's intersection with an access road.

The liquid gathering lines will be made of polyethylene or a composite polyethylene/steel or polyethylene/fiberglass that is not subject to internal or external pipe corrosion. The content of the produced fluids to be transferred by the liquid gathering system will be approximately 92% produced water and 8% condensate. Trunk line valve connections for the water gathering system will be below ground but accessible from the surface in order to prevent freezing during winter time.

If pipelines or roads encounter a drainage that could be subject to flooding or surface water during extreme precipitation events, Kerr-McGee will apply all applicable Army Corps mandates as well as the BLM's Hydraulic Considerations for Pipeline Crossings of Stream Channels (BLM Technical Note 423, April 2007). In addition, all stream and drainage crossings will be evaluated to determine the need for stream alteration permits from the State of Utah Division of Water Rights and if necessary, required permits will be secured. Similarly, where a road or pipeline crossing exists the pipe will be butt welded and buried to a depth between 24 and 48 inches or more. Dirt roads will be cut and restored to a condition equivalent to the existing condition. All Uintah County road encroachment and crossing permits, where applicable, will be obtained prior to crossing construction. In no case will pressure testing of pipelines result in discharge of liquids to the surface.

Pipeline signs will be installed along the route to indicate the pipeline proximity, ownership, and to provide emergency contact phone numbers. Above ground valves and lateral T's will be installed at various locations for production integrity and safety purposes.

Upon completion of the proposed buried pipeline, the entire area of disturbance will be reclaimed to the standards proposed in the Green River District Reclamation Guidelines. Please refer to section J for more details regarding final reclamation.

When no longer deemed necessary by the operator, Kerr-McGee or it's successor will consult with the BLM, Vernal Field Office before terminating of the use of the pipeline(s).

The Anadarko Completions Transportation System (ACTS) information:

Please refer to Exhibit C for ACTs Lines

Kerr-McGee will use either a closed loop drilling system that will require one pit and one storage area to be constructed on the drilling pad or a traditional drilling operation with one pit. The storage area will be used to contain only the de-watered drill cuttings and will be lined and reclaimed according to traditional pit closure standards. The pit will be constructed to

RECEIVED: May. 21, 2012

allow for completion operations. The completion operations pit is lined and will be used for the wells drilled on the pad or used as part of our Anadarko Completions Transportation (ACTS) system which is disussed in more detail below. Using the closed loop drilling system will allow Kerr-McGee to decrease the amount of disturbance/footprint on location compared to a single large drilling/completion pit.

If Kerr-McGee does not use a closed loop system, it will construct a drilling reserve pit to contain drill cuttings and for use in completion operations. Depending on the location of the pit, its relation to future drilling locations, the reserve/completion pit will be utilized for the completion of the wells on that pad and/or be used as part of our ACTS system.

Kerr-McGee will use ACTS to optimize the completion processes for multiple pads across the project area which may include up to a section of development. ACTS will facilitate management of frac fluids by utilizing existing reserve pits and temporary, surface-laid aluminum liquids transfer lines between frac locations. The pit will be refurbished as follows when a traditional drill pit is used: mix and pile up drill cuttings with dry dirt, bury the original liner in the pit, walk bottom o pit with cat. Kerr-McGee will reline the pit with a 30 mil liner and double felt padding. The refurbished pit will be the same size or smaller as specified in the originally approved ROW/APD. The pit refurb will be done in a normal procedure and there will be no modification to the pit.

All four sides of the completions pit will be fenced in according to standard pit fencing procedures. Netting will be installed over all pits.

Any hydrocarbons collected will be treated and sold at approved sales facilities. A loading rack with drip containment will also be installed where water trucks would unload and load to prevent damage caused from pulling hoses in and out of the pit .

ACTS will require temporarily laying multiple 6” aluminum water transfer lines on the surface between either existing or refurbished reserve pits. Please see the attached ACTS exhibit C for placement of the proposed temporary lines. The temporary aluminum transfer lines will be utilized to transport frac fluid being injected and/or recovered during the completion process and will be laid adjacent to existing access roads or pipeline corridors. Upon completion of the frac operation, the liquids transfer lines will be flushed with fresh water and purged with compressed air. The contents of the transfer lines will be flushed into a water truck for delivery to another ACTS location or a reserve pit.

The volume of frac fluid transported through a water transfer line will vary, but volume is projected to be approximately 1.75 bbls per 50-foot joint. Although the maximum working pressure is 125 psig, the liquids transfer lines will be operated at a pressure of approximately 30 to 40 psig. Kerr-McGee requests to keep the netted pit open for one year from first production of the first produced well on the pad. During this time the surrounding well location completion fluids may be recycled in this pit and utilized for other frac jobs in the area. After one year Kerr-McGee will backfill the pit and reclaim. If the pit is not needed for an entire year it will be backfilled and reclaimed earlier. Kerr-McGee understands that due to the temporary nature of this system, BLM considers this a casual use situation; therefore, no permanent ROW or temporary use plan will need to be issued by the BLM.

E. Location and Types of Water Supply:

Water for drilling and completion operations will be obtained from the following sources:

Permit # 49-2307	JD Field Services	Green River- Section 15, T2N, R22E
Permit # 49-2321	R.N. Industries	White River- Section 2, T10S, R24E
Permit # 49-2319	R.N. Industries	White River- Various Sources
Permit # 49-2320	R.N. Industries	Green River- Section 33, T8S, R23E

Water will be hauled to location over the roads marked on Maps A and B.

No water well is to be drilled on this lease.

RECEIVED: May. 21, 2012

F. Construction Materials:

Construction operations will typically be completed with native materials found on location. Construction materials that must be imported to the site (mineral material aggregate, soils or materials suitable for fill/surfacing) will be obtained from a nearby permitted source (described in site-specific documents). No construction materials will be removed from federal lands without prior approval from the BLM. A source location other than an on-location construction site will be designated either via a map or narrative within the project specific materials provided to the BLM.

G. Methods for Handling Waste:

All wastes subject to regulation will be handled in compliance with applicable laws to minimize the potential for leaks or spills to the environment. Kerr-McGee also maintains a Spill Control and Countermeasure Plan, which includes notification requirements, including the BLM, for all reportable spills of oil, produced liquids, and hazardous materials.

Any accidental release, such as a leak or spill in excess of the reportable quantity, as established by 40 CFR Part 117.3, will be reported as per the requirements of CERCLA, Section 102 B. If a release involves petroleum hydrocarbons or produced liquids, Kerr-McGee will comply with the notification requirements of NTL-3A. Drill cuttings and/or drilling fluids will be contained in the reserve/frac pit whether a closed loop system is used or not. Cuttings will be buried in pit(s) upon closure. Unless specifically approved by the BLM, no oil or other oil-based drilling additives, chromium/metals-based, or saline muds will be used during drilling. Only fresh water (as specified above), biodegradable polymer soap, bentonite clay, and/or non-toxic additives will be used in the mud system.

Pits will be constructed to minimize the accumulation of surface precipitation runoff into the pit (via appropriate placement of subsoil storage areas and/or construction of berms, ditches, etc). Should unexpected liquid petroleum hydrocarbons (crude oil or condensate) be encountered during drilling, completions or well testing, liquid petroleum hydrocarbons will either be contained in test tanks on the well site or evacuated by vacuum trucks and transported to an approved disposal/sales facility. Should petroleum hydrocarbons unexpectedly be released into a reserve/completion pit, they will be removed as soon as practical but in no case will they remain longer than 72 hours unless an alternate is approved by the BLM. Should timely removal not be feasible, the pit will be netted as soon as practical. Similarly, hydrocarbon removal will take place prior to the closure of the pit, unless authorization is provided for disposal via alternate pit closure methods (e.g. solidification).

The reserve and/or fracture stimulation pit will be lined with an impermeable liner. The liner will be a synthetic material 30 mil or thicker. The bottom and side walls of the pit will be void of any sharp rocks that could puncture the liner. The liner will be installed over smooth fill subgrade that is free of pockets, loose rocks, or other materials (i.e. sand, sifted dirt, bentonite, straw, etc.) that could damage the liner. After evaporation and when dry, the reserve pit liners will be cut off, ripped and/or folded back (as safety considerations allow) as near to the mud surface as possible and buried on location or hauled to a landfill prior to backfilling the pit with a minimum of five feet of soil material.

Where necessary and if conditions (freeboard, etc.) allow, produced liquids from newly completed wells may be temporarily disposed of into pits for a period not to exceed 90 days as per Onshore Order Number 7 (OSO 7). Subsequently, permanent approved produced water disposal methods will be employed in accordance with OSO 7 and/or as described in a Water Management Plan (WMP). Otherwise, fluids disposal locations and associated haul routes, for ROW consideration, are typically depicted on Topo A of individual projects. Revisions to the water source or method of transportation will be subject to written approval from the BLM.

Any additional pits necessary for subsequent operations, such as temporary flare or workover pits, will be contained within the originally approved well pad and disturbance boundaries. Such temporary pits will be backfilled and reclaimed within 180 days of completion of work at a well location.

Pits containing drilling cuttings, mud, and/or completions fluids will be allowed to dry. Any free fluids remaining after one year from reaching total depth, date of completion, and/or determination of inactivity will be removed (as weather conditions allow) to an approved site and the pit reclaimed. Installation and operation of any sprinklers, pumps, and equipment will ensure that water spray or mist does not drift.

RECEIVED: May. 21, 2012

No garbage or non-exempt substances as defined by Resource Conservation and Recovery Act (RCRA) subtitle C will be placed in the reserve pit. All refuse (trash and other solid waste including cans, paper, cable, etc.) generated during construction, drilling, completion, and well testing activities will be contained in an enclosed receptacle, removed from the drill locations promptly, and transported to an approved disposal facility. Immediately after removal of the drilling rig, all debris and other waste materials not contained within trash receptacles will be collected and removed from the well location.

For the protection of livestock and wildlife, all open pits (excluding flare pits) will be fenced to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet. Siphons, catchments, and absorbent pads will be installed to keep hydrocarbons produced by the drilling rig or other equipment on location from entering the reserve pit. Hydrocarbons, contaminated pads, and/or soils will be disposed of in accordance with state and federal requirements.

Portable, self-contained chemical toilets and/or sewage processing facilities will be provided for human waste disposal. Upon completion of operations, or as required, the toilet holding tanks will be pumped and the contents disposed of in an approved sewage disposal facility. All applicable regulations pertaining to disposal of human and solid waste will be observed.

Materials Management

Hazardous materials above reportable quantities will not be produced by drilling or completing proposed wells or constructing the pipelines/facilities. The term “hazardous materials” as used here means: (1) any substance, pollutant, or containment listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended 42 U.S.C. 9601 et seq., and the regulations issued under CERCLA; and (2) any hazardous waste as defined in RCRA of 1976, as amended. In addition, no extremely hazardous substance, as defined in 40 CFR 355, in threshold planning quantities, would be used, produced, stored, transported, or disposed of while producing any well.

Hazardous materials may be contained in some grease or lubricants, solvents, acids, paint, and herbicides, among others as defined above. Kerr-McGee maintains a file, per 29 CFR 1910.1200 (g) containing current Material Safety Data Sheets (MSDS) for all chemicals, compounds, and/or substances that are used during the course of construction, drilling, completion, and production operations for this project. The transport, use, storage and handling of hazardous materials will follow procedures specified by federal and state regulations. Transportation of hazardous materials to the well location is regulated by the Department of Transportation (DOT) under 49 CFR, Parts 171-180. DOT regulations pertain to the packing, container handling, labeling, vehicle placarding, and other safety aspects.

Potentially hazardous materials used in the development or operation of wells will be kept in limited quantities on well sites and at the production facilities for short periods of time. Chemicals meeting the criteria for being an acutely hazardous material/substance or meet the quantities criteria per BLM Instruction Memorandum No. 93-344 will not be used.

Chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act (SARA) in quantities of 10,000 pounds or more may be produced and/or stored at production facilities (crude oil/condensate, produced water). They may also be kept in limited quantities on drilling sites (barite, diesel fuel, cement, cottonseed hulls etc.) for short periods of time during drilling or completion activities.

Fluids disposal and pipeline/haul routes are depicted on Topo Map A.

Any produced water separated from recoverable condensate from the proposed well will be contained in a water tank and will then be transported by pipeline and/or truck to one of the pre-approved disposal sites:

RECEIVED: May. 21, 2012

RNI in Sec. 5 T9S R22E
NBU #159 in Sec. 35 T9S R21E
Ace Oilfield in Sec. 2 T6S R20E
MC&MC in Sec. 12 T6S R19E
Pipeline Facility in Sec. 36 T9S R20E
Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E
Bonanza Evaporation Pond in Sec. 2 T10S R23E

Or to one of the following Kerr-McGee active Salt Water Disposal (SWD) wells:

NBU 159 SWD in Sec. 35 T9S R21E
CIGE 112D SWD in Sec. 19 T9S R21E
CIGE 114 SWD in Sec. 34 T9S R21E
NBU 921-34K SWD in Sec. 34 T9S R21E
NBU 921-33F SWD in Sec. 34 T9S R21E

H. Ancillary Facilities:

No additional ancillary facilities are planned for this location.

I. Well Site Layout:

The location, orientation and aerial extent of each drill pad, reserve/completion/flare pit (for closed loop or non-closed loop operations), access road ingress/egress points, drilling rig, dikes/ditches, existing wells/infrastructure, proposed cuts and fills, and topsoil and spoil material stockpile locations are depicted on the exhibits for each project, where applicable. Site-specific conditions may require slight deviation in actual equipment depending on whether a closed loop system is used. Surface distance may be less if using closed loop. But in either case, the area of distrubance will not exceed the maximum disturbance outlined in the attached exhibits.

For the protection of livestock and wildlife, all open pits and cellars will be fenced to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.

Each well will utilize either a centralized tank battery, centralized fluids management system, or have tanks installed on its pad. Production/ Produced Liquid tanks will be constructed, maintained, and operated to prevent unauthorized surface or subsurface discharges of liquids and to prevent livestock or wildlife entry. The tanks will be kept reasonably free from surface accumulations of liquid hydrocarbons. The tanks are not to be used for disposal of liquids from additional sources without prior approval of BLM.

J. Plans for Surface Reclamation:

The surface reclamation will be undertaken in two phases: interim and final. Interim reclamation is conducted following well completion and extends through the period of production. Interim reclamation is for the area of the well pad that is not required for production activities. Final reclamation is conducted following well plugging/conversion and/or facility abandonment processes.

Reclamation activities in both phases may include but is not limited to the re-contouring or re-configuration of topographic surfaces, restoration of drainage systems, segregation of spoils materials, minimizing surface disturbance, re-evaluating backfill requirements, pit closure, topsoil redistribution, soil treatments, seeding and weed control.

Interim Reclamation

Interim reclamation may include pit evaporation, fluid removal, pit solidification, re-contouring, ripping, spreading top soil, seeding, and/or weed control. Interim reclamation will be performed in accordance with OSO 1, or written notification

RECEIVED: May. 21, 2012

will be provided to the BLM for approval. Where feasible, drilling locations, reserve pits, or access routes not utilized for production operations will be re-contoured to a natural appearance.

Interim re-contouring involves bringing all construction material from cuts and fills back onto the well pad and site and reestablishing the natural contours where desirable and practical. Fill and stockpiled spoils no longer necessary to the operation will be spread on the cut slopes and covered with stockpiled topsoil. All stockpiled top soils will be used for interim reclamation where practical to maintain soil viability. Where possible, the land surface will be left "rough" after re-contouring to ensure that the maximum surface area will be available to support the reestablishment of vegetative cover.

A reserve pit, upon being allowed to dry, will be backfilled and compacted with cover materials that are void of any topsoil, vegetation, large stones, rocks or foreign objects. Soils that are moisture laden, saturated, or partially/completely frozen will not be used for backfill or cover. The pit area will be mounded to allow for settling and to promote positive surface drainage away from the pit. Disposal of pit fluids and linings is discussed in Section G.

Final Reclamation

Final reclamation will be performed for unproductive wells and after the end of the life of a productive well. As soon as practical after the conclusion of drilling and testing operations, unproductive drill holes will be plugged and abandoned (P&A). Site and road reclamation will commence following plugging. In no case will reclamation at non-producing locations be initiated later than six (6) months from the date a well is plugged. A joint inspection of the disturbed area to be reclaimed may be requested by Kerr-McGee. The primary purpose of this inspection will be to review the existing conditions, or agree upon a revised final reclamation and abandonment plan. The BLM will be notified prior to commencement of reclamation operations. A Notice of Intent to Abandon will be filed for final recommendations regarding surface reclamation.

After plugging, all wellhead equipment that is no longer needed will be removed, and the well site will be reclaimed. Final contouring will blend with and follow as closely as practical the natural terrain and contours of the original site and surrounding areas. After re-contouring the site to the approximate contour that existed prior to pad construction, final grading will be conducted over the entire surface of the well site and access road. The area will be ripped to a depth of 18 to 24 inches on 18 to 24-inch centers, where practical. The surface soil material will be pitted with small depressions to form longitudinal depressions 12 to 18 inches deep, where practical. The entire area will be uniformly covered with the depressions constructed perpendicular to the natural flow of water.

Reclamation of roads will be performed at the discretion of the BLM. All unnecessary surface equipment and structures (e.g. cattle guards) and water control structures (e.g. culverts, drainage pipes) not needed to facilitate successful reclamation will be removed during final reclamation. Roads that will be reclaimed will be ripped to a depth of 18 inches where practical, re-contoured to approximate the original contour of the ground and seeded in accordance with the seeding specifications of the BLM.

Upon successfully completing reclamation of a P&A location, a Final Abandonment Notice will be submitted to the BLM.

Measures Common to Interim and Final Reclamation

Soil preparation will be conducted using a disk for areas in need of more soil preparation following site preparation. This will provide primary soil tillage to a depth no greater than 6 inches. Prior to reseeding, compacted areas will be scarified by ripping or chiseling to loosen compacted soils, promote water infiltration, and improve soil aeration and root penetration.

Seeding will occur year-round as conditions allow and will typically be accomplished through the use of a no-till rangeland style seed drill with a "picker box" in order to seed "fluffy" seed. Where drill seeding is not the preferred method, seed will be broadcast and then raked into the ground at double the rate of drill seeding. Seed mixes appropriate to the native plant community as determined and specified for each project location based on the site specific soils will be used for re-vegetation. The seed mixes will be selected from a list provided by or approved by the BLM, or a specific seed mix will be proposed by Kerr-McGee to the BLM and used after its approval. The selected specific seed mix for each well location and road segment will be utilized while performing interim and final reclamation for each project. All seed will be certified and tags will be maintained by Kerr-McGee. Every effort will be made to obtain "cheat grass free seed".

RECEIVED: May. 21, 2012

Seed Mix to be used for Well Site, Access Road, and Pipeline (as applicable):

Bonanza Area Mix	**Pure Live Seed lbs/acre**
Crested Wheat (Hycrest)	2
Bottlebrush Squirreltail	1
Western Wheatgrass (Arriba)	1
Indian Ricegrass	1
Fourwing Saltbush	2
Shadscale	2
Forage Kochia	0.25
Rocky Mountain Bee	0.5
Total	9.75

Additional soil amendments and/or stabilization may be required on sites with poor soils and/or excessive erosion potential. Where severe erosion can become a problem and/or the use of machinery is not practical, seed will be hand broadcast and raked with twice the specified amount of seed. Slopes will be stabilized using materials specifically designed to prevent erosion on steep slopes and hold seed in place so vegetation can become permanently established. These materials will include, but are not limited to: erosion control blankets, hydro-mulch, and/or bonded fiber matrix at a rate to achieve a minimum of 80 percent soil coverage. Soil amendments such as “Sustain” (an organic fertilizer that will be applied at the rate 1,800 – 2,100 lbs/acre with seed) may also be dry broadcast or applied with hydro-seeding equipment.

Weed Control

All weed management will be done in accordance with the Vernal BLM Surface Disturbance Weed Policy. Noxious weeds will be controlled, as applicable, on project areas. Monitoring and management of noxious and/or invasive weeds of concern will be completed annually until the project is deemed successfully reclaimed by the surface management agency and/or owner according to the Anadarko Integrated Weed Management Plan. Noxious weed infestations will be mapped using a GPS unit and submitted to the BLM with information required in the Vernal BLM Surface Disturbance Weed Policy. If herbicide is to be applied it will be done according to an approved Pesticide Use Permit (PUP), inclusive of applicable locations. All pesticide applications will be recorded using a Pesticide Application Record (PAR) and will be submitted along with a Pesticide Use Report (PUR) annually prior to Dec. 31.

Monitoring

Monitoring of reclaimed project areas will be completed annually during the growing season and actions to ensure reclamation success will be taken as needed. During the first two growing seasons an ocular methodology will be used to determine the success of the reclamation activities. During the 3rd growing season a 200 point line intercept (quantitative) methodology will be used to obtain basal cover. The goal is to have the reclaimed area reach 30% basal cover when compared to the reference site. If after three growing seasons the area has not reached 30% basal cover, additional reclamation activities may be necessary. Monitoring will continue until the reclaimed area reaches 75% basal cover of desirable vegetation when compared to the reference site. (Green River District Reclamation Guidelines)

All monitoring reports will be submitted electronically to the Vernal BLM in the form of a geo-database no later than March 1st of the calendar year following the data collection.

K. Surface/Mineral Ownership:

United States of America
Bureau of Land Management
170 South 500 East
Vernal, UT 84078
(435)781-4400

L. Other Information:

RECEIVED: May. 21, 2012

Onsite Specifics:

- NRS requested that the access road to the NBU 1022-3O pad be engineered
- Keep spoils out of drainage at corners 5 through 10.
- If not possible to place production facilities on NBU 1022-3J pad, use low profile tanks.
- Top Soil: Need to save 4" topsoil and will be move and put around the corner
- Need to obtain a storm water permit
- BMP on the pit use (waddles, hay bails or silt fence)

Cultural and Paleontological Resources

All personnel are strictly prohibited from collecting artifacts, any paleontological specimens or fossils, and from disturbing any significant cultural resources in the area. If artifacts, fossils, or any culturally sensitive materials are exposed or identified in the area of construction, all construction operations that would affect the newly discovered resource will cease, and Kerr-McGee will provide immediate notification to the BLM.

Resource Reports:

A Class I literature review was completed on February 1, 2012 by Montgomery Archaeological Consultants, Inc (MOAC). For additional details please refer to report MOAC 11-404.

A paleontological reconnaissance survey was completed on February 3, 2012 by Intermountain Paleo Consultants. For additional details please refer to report IPC 11-202PRE.

Biological field survey was completed on June 15, 2011 by Grasslands Consulting, Inc (GCI). For additional details please refer to report GCI-693.

Proposed Action Annual Emissions Tables:

Table 1: Proposed Action Annual Emissions (tons/year)[1]

Pollutant	Development	Production	Total
NOx	3.8	0.12	3.92
CO	2.2	0.11	2.31
VOC	0.1	4.9	5
SO_2	0.005	0.0043	0.0093
PM_{10}	1.7	0.11	1.81
$PM_{2.5}$	0.4	0.025	0.425
Benzene	2.2E-03	0.044	0.046
Toluene	1.6E-03	0.103	0.105
Ethylbenzene	3.4E-04	0.005	0.005
Xylene	1.1E-03	0.076	0.077
n-Hexane	1.7E-04	0.145	0.145
Formaldehyde	1.3E-02	8.64E-05	1.31E-02

[1] Emissions include 1 producing well and associated operations traffic during the year in which the project is developed

Table 2: Proposed Action versus 2012 WRAP Phase III Emissions Inventory Comparison

Species	Proposed Action Production Emissions (ton/yr)	WRAP Phase III 2012 Uintah Basin Emission Inventory[a] (ton/yr)	Percentage of Proposed Action to WRAP Phase III
NOx	23.52	16,547	0.14%
VOC	30	127,495	0.02%

[a] http://www.wrapair.org/forums/ogwg/PhaseIII_Inventory.html Uintah Basin Data

RECEIVED: May. 21, 2012

M. Lessee's or Operators' Representative & Certification:

Gina T. Becker
Regulatory Analyst II
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6086

Tommy Thompson
General Manager, Drilling
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

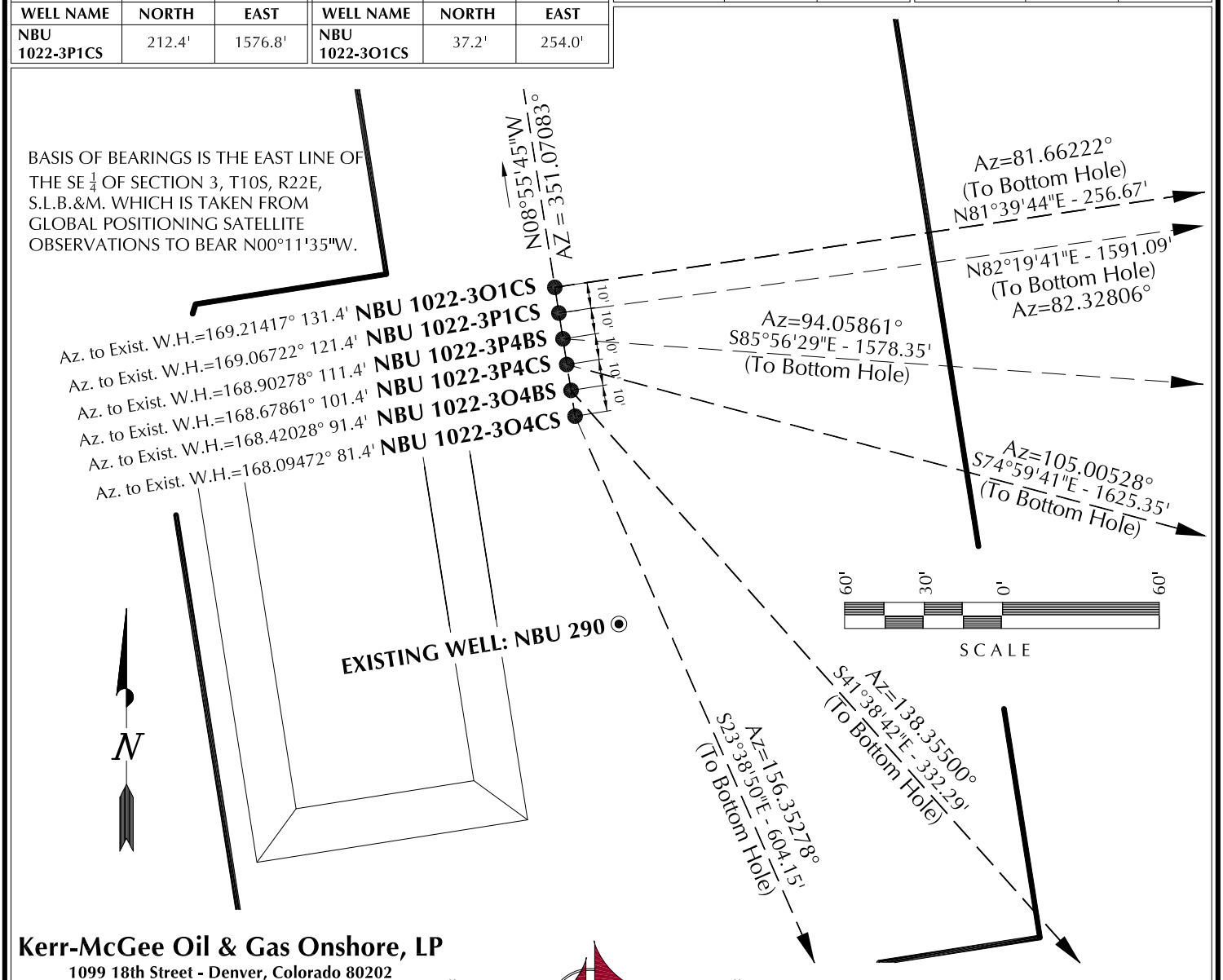
Gina T.Becker

February 16, 2012
Date

WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27			NAD83		NAD27		
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES
NBU 1022-3O4CS	39°58'21.059" 39.972516°	109°25'26.515" 109.424032°	39°58'21.183" 39.972551°	109°25'24.058" 109.423350°	660' FSL 2065' FEL	39°58'15.590" 39.970997°	109°25'23.406" 109.423168°	39°58'15.714" 39.971032°	109°25'20.950" 109.422486°	106' FSL 1825' FEL
NBU 1022-3O4BS	39°58'21.156" 39.972543°	109°25'26.534" 109.424037°	39°58'21.280" 39.972578°	109°25'24.078" 109.423355°	670' FSL 2067' FEL	39°58'18.702" 39.971862°	109°25'23.700" 109.423250°	39°58'18.826" 39.971896°	109°25'21.244" 109.422568°	421' FSL 1847' FEL
NBU 1022-3P4CS	39°58'21.254" 39.972570°	109°25'26.554" 109.424043°	39°58'21.378" 39.972605°	109°25'24.098" 109.423361°	680' FSL 2069' FEL	39°58'17.089" 39.971414°	109°25'06.397" 109.418444°	39°58'17.213" 39.971448°	109°25'03.942" 109.417762°	256' FSL 500' FEL
NBU 1022-3P4BS	39°58'21.352" 39.972598°	109°25'26.574" 109.424048°	39°58'21.476" 39.972632°	109°25'24.118" 109.423366°	689' FSL 2070' FEL	39°58'20.240" 39.972289°	109°25'06.358" 109.418433°	39°58'20.364" 39.972323°	109°25'03.902" 109.417751°	575' FSL 496' FEL
NBU 1022-3P1CS	39°58'21.449" 39.972625°	109°25'26.594" 109.424054°	39°58'21.573" 39.972659°	109°25'24.138" 109.423372°	699' FSL 2072' FEL	39°58'23.540" 39.973206°	109°25'06.344" 109.418429°	39°58'23.664" 39.973240°	109°25'03.889" 109.417747°	909' FSL 494' FEL
NBU 1022-3O1CS	39°58'21.546" 39.972652°	109°25'26.614" 109.424060°	39°58'21.670" 39.972686°	109°25'24.158" 109.423377°	709' FSL 2073' FEL	39°58'21.913" 39.972754°	109°25'23.353" 109.423154°	39°58'22.037" 39.972788°	109°25'20.897" 109.422471°	746' FSL 1819' FEL
NBU 290	39°58'20.271" 39.972298°	109°25'26.299" 109.423972°	39°58'20.395" 39.972332°	109°25'23.843" 109.423290°	580' FSL 2049' FEL					

RELATIVE COORDINATES - From Surface Position to Bottom Hole

WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST
NBU 1022-3O4CS	-553.4'	242.3'	NBU 1022-3O4BS	-248.3'	220.8'	NBU 1022-3P4CS	-420.8'	1569.9'	NBU 1022-3P4BS	-111.7'	1574.4'
NBU 1022-3P1CS	212.4'	1576.8'	NBU 1022-3O1CS	37.2'	254.0'						



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WELL PAD - NBU 1022-3O

WELL PAD INTERFERENCE PLAT

WELLS - NBU 1022-3O4CS, NBU 1022-3O4BS, NBU 1022-3P4CS, NBU 1022-3P4BS, NBU 1022-3P1CS & NBU 1022-3O1CS
LOCATED IN SECTION 3, T10S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH.

609 CONSULTING, LLC
2155 North Main Street
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 10-16-11	SURVEYED BY: J.W.	SHEET NO: 7
DATE DRAWN: 11-14-11	DRAWN BY: T.J.R.	7 OF 18
SCALE: 1" = 60'	Date Last Revised:	

PLEASE NOTE:

1. LOCATIONS OF PROPOSED PIPELINES DISPLAYED WITHIN THE PAD AREA ARE FOR VISUALIZATION PURPOSES ONLY. ACTUAL LOCATIONS TO BE DETERMINED DURING CONSTRUCTION.
2. EXCESS MATERIAL MAY BE USED FOR ROAD CONSTRUCTION.

EXISTING ACCESS ROAD

10" GAS LINE
6" (MAX.) LIQUID LINE

PROPOSED ACCESS ROAD RE-ROUTE

TOPSOIL STOCKPILE

RESERVE PIT & EXCESS CUT STOCKPILE

RESERVE PIT
12' DEPTH
SLOPE 1.5:1

RECLAIMED PIT

RESERVE PIT & EXCESS CUT STOCKPILE

FILL

CUT

NBU 1022-3O1CS
NBU 1022-3P1CS
NBU 1022-3P4BS
NBU 1022-3P4CS
NBU 1022-3O4BS
NBU 1022-3O4CS

EXISTING WELL: NBU 290

EXISTING METHANOL TANK

EXISTING TANKS AND BERM

EXISTING SEPARATOR

EXISTING WELL PAD

DERRICK STAND
PIPETUBS
PIPERACKS
ANCHOR
WATER TANK
MUD PUMP 2
MUD PUMP 1
DIESEL TANK
GENERATOR
BOILER

N81°39'44"E - 256.67' (TO BOTTOM HOLE)
N82°19'41"E - 1591.09' (TO BOTTOM HOLE)
S85°56'29"E - 1578.35' (TO BOTTOM HOLE)
S74°59'41"E - 1625.35' (TO BOTTOM HOLE)
S41°38'42"E - 332.29' (TO BOTTOM HOLE)
S23°38'50"E - 604.15' (TO BOTTOM HOLE)

WELL PAD - NBU 1022-3O DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 5278.5'
FINISHED GRADE ELEVATION = 5270.6'
CUT SLOPES = 1.5:1
FILL SLOPES = 1.5:1
TOTAL WELL PAD AREA = 3.43 ACRES
TOTAL DISTURBANCE AREA = 4.36 ACRES
SHRINKAGE FACTOR = 1.10
SWELL FACTOR = 1.00

WELL PAD QUANTITIES

TOTAL CUT FOR WELL PAD = 23,098 C.Y.
TOTAL FILL FOR WELL PAD = 22,184 C.Y.
TOPSOIL @ 6" DEPTH = 1,948 C.Y.
EXCESS MATERIAL = 914 C.Y.

RESERVE PIT QUANTITIES

TOTAL CUT FOR RESERVE PIT
+/- 7,210 C.Y.
RESERVE PIT CAPACITY (2' OF FREEBOARD)
+/- 27,400 BARRELS

WELL PAD LEGEND

- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PROPOSED BOTTOM HOLE LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)
- PPL — PROPOSED PIPELINE
- EPL — EXISTING PIPELINE

HORIZONTAL 0 30' 60' 1" = 60'
2' CONTOURS

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WELL PAD - NBU 1022-3O

WELL PAD - LOCATION LAYOUT
NBU 1022-3O4CS, NBU 1022-3O4BS,
NBU 1022-3P4CS, NBU 1022-3P4BS,
NBU 1022-3P1CS & NBU 1022-3O1CS
LOCATED IN SECTION 3, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
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TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

SCALE: 1"=60' | DATE: 11/18/11 | SHEET NO: 8 8 OF 18
REVISED: GRB 1/11/12

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2. EXCESS MATERIAL MAY BE USED FOR ROAD CONSTRUCTION.

EXISTING ACCESS ROAD

10" GAS LINE
6" (MAX.) LIQUID LINE

PROPOSED ACCESS ROAD RE-ROUTE

TOPSOIL STOCKPILE

RESERVE PIT & EXCESS CUT STOCKPILE

RESERVE PIT & EXCESS CUT STOCKPILE

COMPLETIONS PIT (CUTTINGS AREA)
12' DEPTH
SLOPE 1.5:1

RECLAIMED PIT

FILL

CUT

DERRICK STAND

PIPETUBS

PIPERACKS

CLOSED LOOP EQUIPMENT

WATER TANK

ANCHOR

MUD PUMP 1

MUD PUMP 2

GENERATOR

DIESEL TANK

BOILER

EXISTING WELL: NBU 290

EXISTING METHANOL TANK

EXISTING TANKS AND BERM

EXISTING SEPARATOR

EXISTING WELL PAD

NBU 1022-3O1CS
NBU 1022-3P1CS
NBU 1022-3P4BS
NBU 1022-3P4CS
NBU 1022-3O4BS
NBU 1022-3O4CS

N81°39'44"E - 256.67' (TO BOTTOM HOLE)
N82°19'41"E - 1591.09' (TO BOTTOM HOLE)
S85°56'29"E - 1578.35' (TO BOTTOM HOLE)
S74°59'41"E - 1625.35' (TO BOTTOM HOLE)
S41°38'42"E - 332.29' (TO BOTTOM HOLE)
S23°38'50"E - 604.15' (TO BOTTOM HOLE)

WELL PAD - NBU 1022-3O (CLOSED LOOP) DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 5278.5'
FINISHED GRADE ELEVATION = 5270.6'
CUT SLOPES = 1.5:1
FILL SLOPES = 1.5:1
TOTAL WELL PAD AREA = 3.43 ACRES
TOTAL DISTURBANCE AREA = 4.36 ACRES
SHRINKAGE FACTOR = 1.10
SWELL FACTOR = 1.00

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WELL PAD - NBU 1022-3O

WELL PAD - LOCATION LAYOUT
NBU 1022-3O4CS, NBU 1022-3O4BS,
NBU 1022-3P4CS, NBU 1022-3P4BS,
NBU 1022-3P1CS & NBU 1022-3O1CS
LOCATED IN SECTION 3, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH

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CONSULTING, LLC
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Sheridan, WY 82801
Phone 307-674-0609
Fax 307-674-0182

WELL PAD QUANTITIES

TOTAL CUT FOR WELL PAD = 23,098 C.Y.
TOTAL FILL FOR WELL PAD = 22,184 C.Y.
TOPSOIL @ 6" DEPTH = 1,948 C.Y.
EXCESS MATERIAL = 914 C.Y.

COMPLETIONS PIT QUANTITIES

TOTAL CUT FOR COMPLETIONS PIT
+/- 5,540 C.Y.
COMPLETIONS PIT CAPACITY
(2' OF FREEBOARD)
+/- 20,850 BARRELS

WELL PAD LEGEND

- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PROPOSED BOTTOM HOLE LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)
- PPL — PROPOSED PIPELINE
- EPL — EXISTING PIPELINE

HORIZONTAL 0 30' 60' 1" = 60'
2' CONTOURS

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

SCALE: 1"=60' | DATE: 1/11/12 | SHEET NO: 8B 8B OF 18
REVISED:

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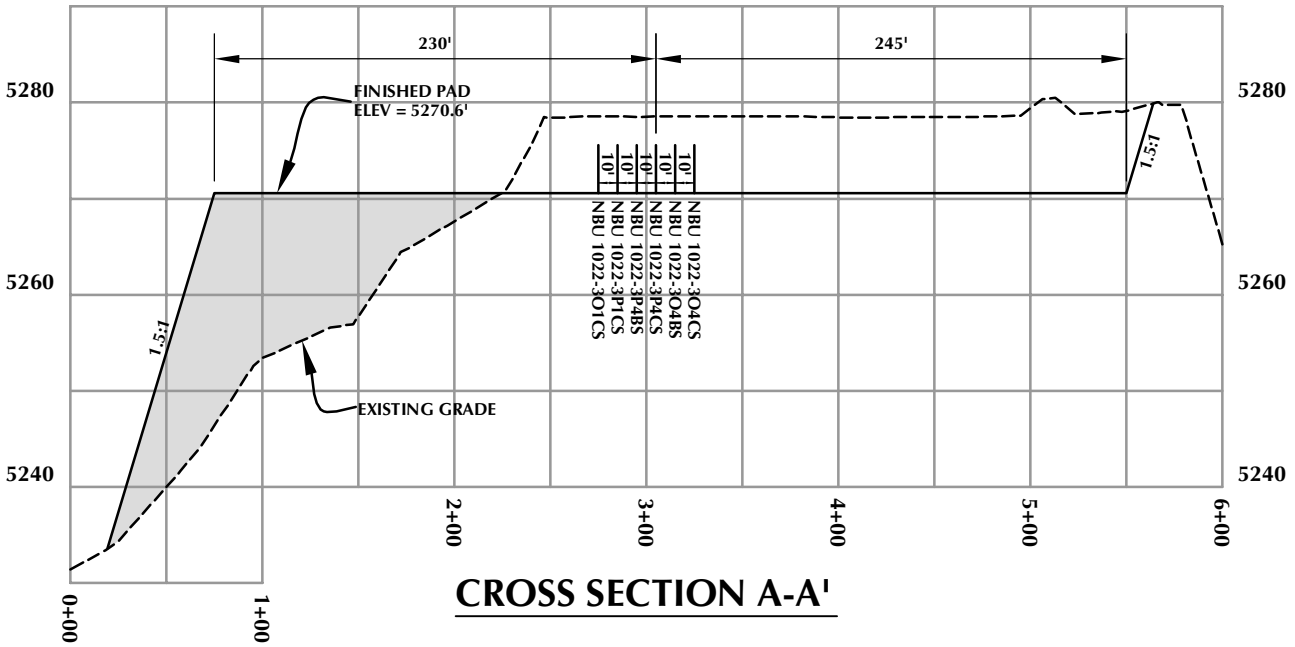
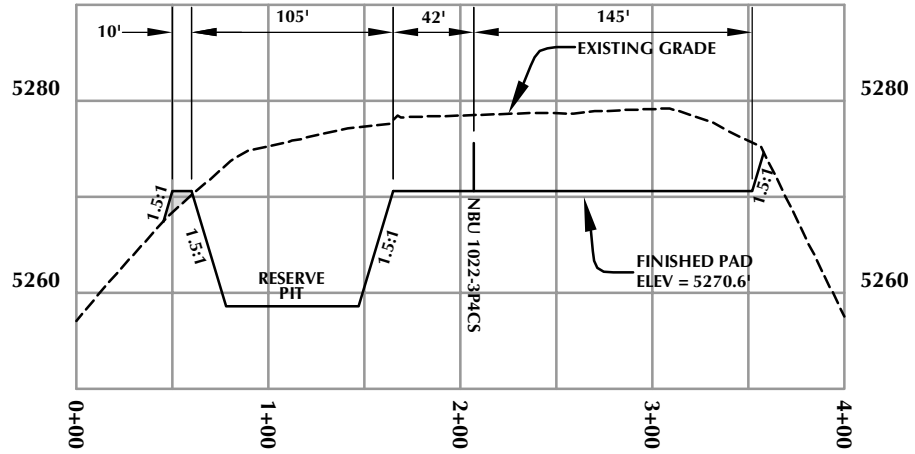


CROSS SECTION A-A'



CROSS SECTION B-B'

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1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 1022-3O

WELL PAD - CROSS SECTIONS
NBU 1022-3O4CS, NBU 1022-3O4BS,
NBU 1022-3P4CS, NBU 1022-3P4BS,
NBU 1022-3P1CS & NBU 1022-3O1CS
LOCATED IN SECTION 3, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH

609
CONSULTING, LLC
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Sheridan, WY 82801
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HORIZONTAL 0 50' 100' 1" = 100'
VERTICAL 0 10' 20' 1" = 20'

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209 NORTH 300 WEST - VERNAL, UTAH 84078

Scale: 1"=100' | Date: 11/18/11 | SHEET NO: 9 9 OF 18
REVISED: APF 1/11/12

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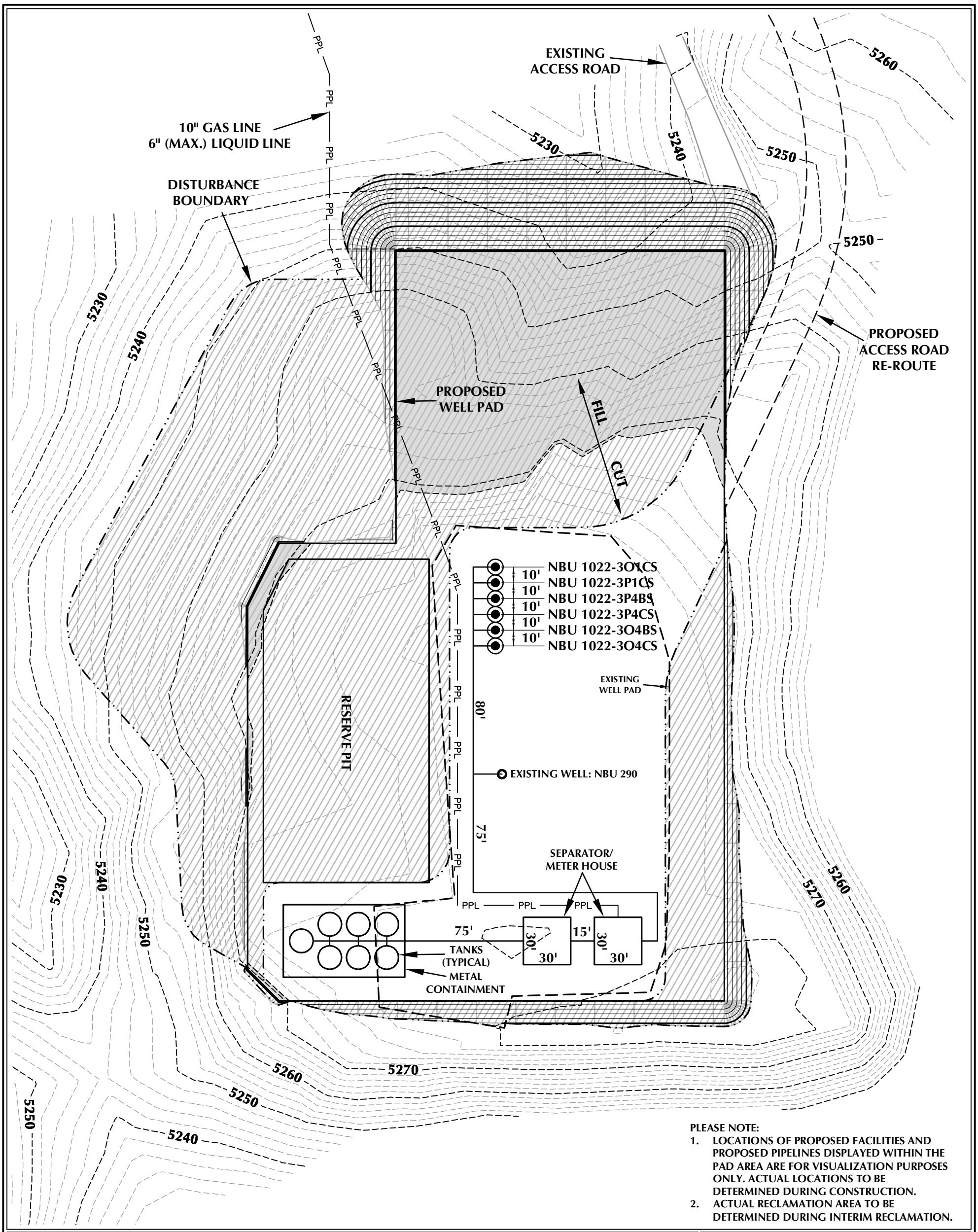

PLEASE NOTE:

1. LOCATIONS OF PROPOSED FACILITIES AND PROPOSED PIPELINES DISPLAYED WITHIN THE PAD AREA ARE FOR VISUALIZATION PURPOSES ONLY. ACTUAL LOCATIONS TO BE DETERMINED DURING CONSTRUCTION.
2. ACTUAL RECLAMATION AREA TO BE DETERMINED DURING INTERIM RECLAMATION.

WELL PAD - NBU 1022-3O DESIGN SUMMARY

TOTAL DISTURBANCE AREA = 4.36 ACRES (INCLUDING EXISTING)
RECLAMATION AREA = 3.12 ACRES
TOTAL WELL PAD AREA AFTER RECLAMATION = 1.24 ACRES

WELL PAD LEGEND

- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PROPOSED BOTTOM HOLE LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)
- PPL — PROPOSED PIPELINE
- EPL — EXISTING PIPELINE
- RECLAMATION AREA

HORIZONTAL 0 30' 60' 1" = 60'
2' CONTOURS

Kerr-McGee Oil & Gas Onshore, LP
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WELL PAD - NBU 1022-3O

WELL PAD - RECLAMATION LAYOUT
NBU 1022-3O4CS, NBU 1022-3O4BS,
NBU 1022-3P4CS, NBU 1022-3P4BS,
NBU 1022-3P1CS & NBU 1022-3O1CS
LOCATED IN SECTION 3, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH

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ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

SCALE: 1"=60' | DATE: 1/11/12 | SHEET NO: 10 10 OF 18
REVISED:

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RECEIVED: May. 21, 2012

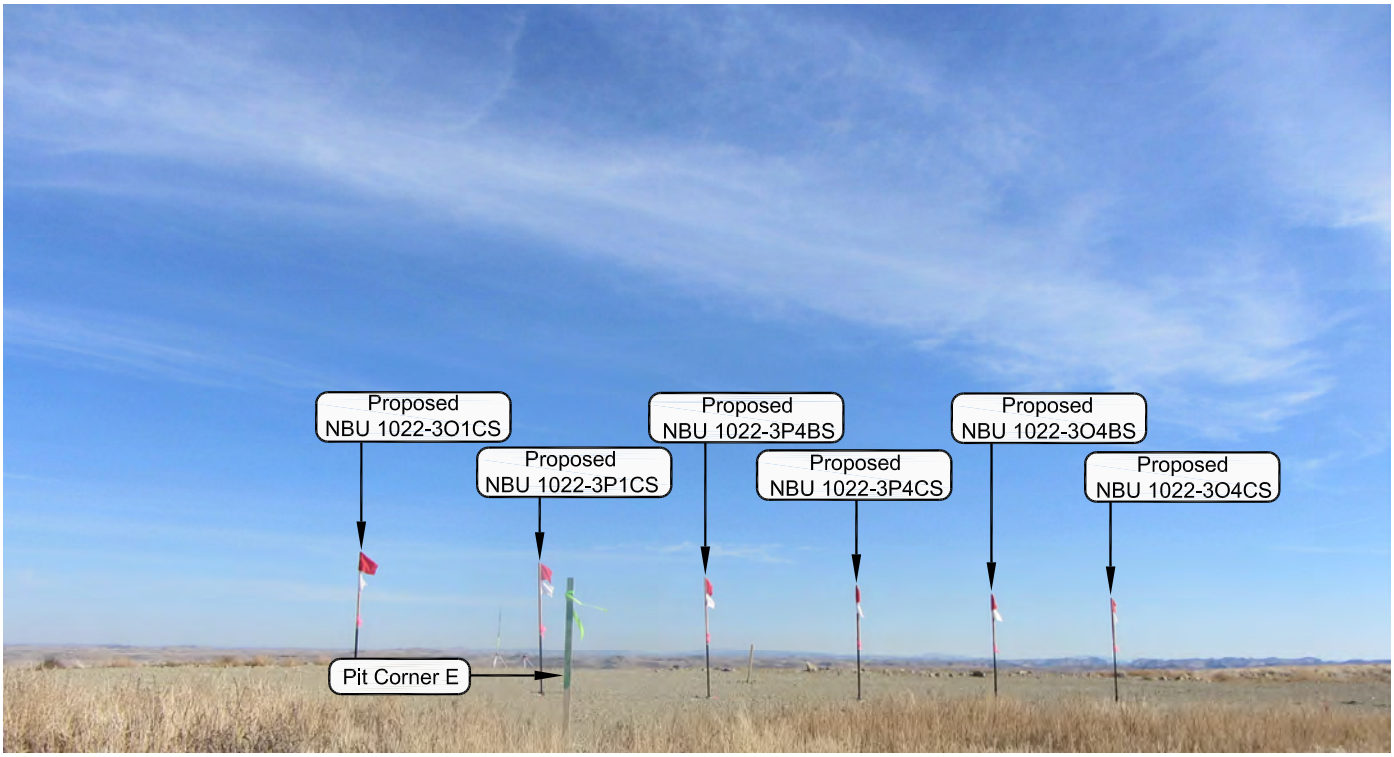

PHOTO VIEW: FROM PIT CORNER E TO LOCATION STAKE **CAMERA ANGLE: SOUTHEASTERLY**

PHOTO VIEW: FROM EXISTING ACCESS ROAD **CAMERA ANGLE: SOUTHERLY**

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 1022-3O

LOCATION PHOTOS
NBU 1022-3O4CS, NBU 1022-3O4BS, NBU 1022-3P4CS, NBU 1022-3P4BS, NBU 1022-3P1CS & NBU 1022-3O1CS
LOCATED IN SECTION 3, T10S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH.

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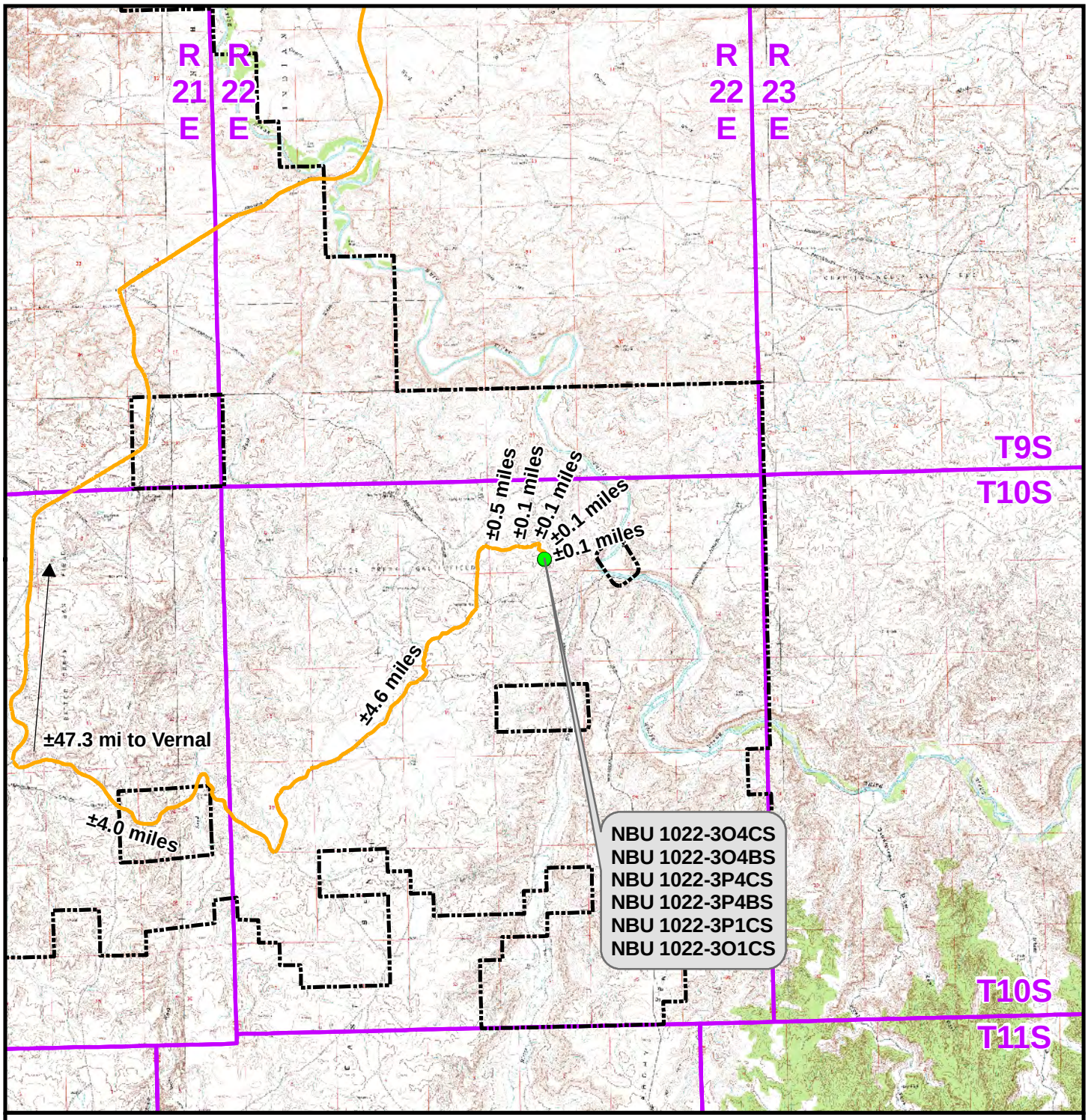
TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE PHOTOS TAKEN: 10-16-11	PHOTOS TAKEN BY: J.W.	SHEET NO: 11
DATE DRAWN: 11-14-11	DRAWN BY: T.J.R.	11 OF 18
Date Last Revised:		

RECEIVED: May. 21, 2012



Legend

Distance From Well Pad - NBU 1022-3O To Unit Boundary: ±3,358ft

Proposed Well Location

Natural Buttes Unit Boundary

Access Route - Proposed

WELL PAD - NBU 1022-3O

TOPO A
NBU 1022-3O4CS, NBU 1022-3O4BS,
NBU 1022-3P4CS, NBU 1022-3P4BS,
NBU 1022-3P1CS & NBU 1022-3O1CS
LOCATED IN SECTION 3, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH

Kerr-McGee Oil & Gas Onshore L.P.

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Denver, Colorado 80202

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Sheridan, Wyoming 82801
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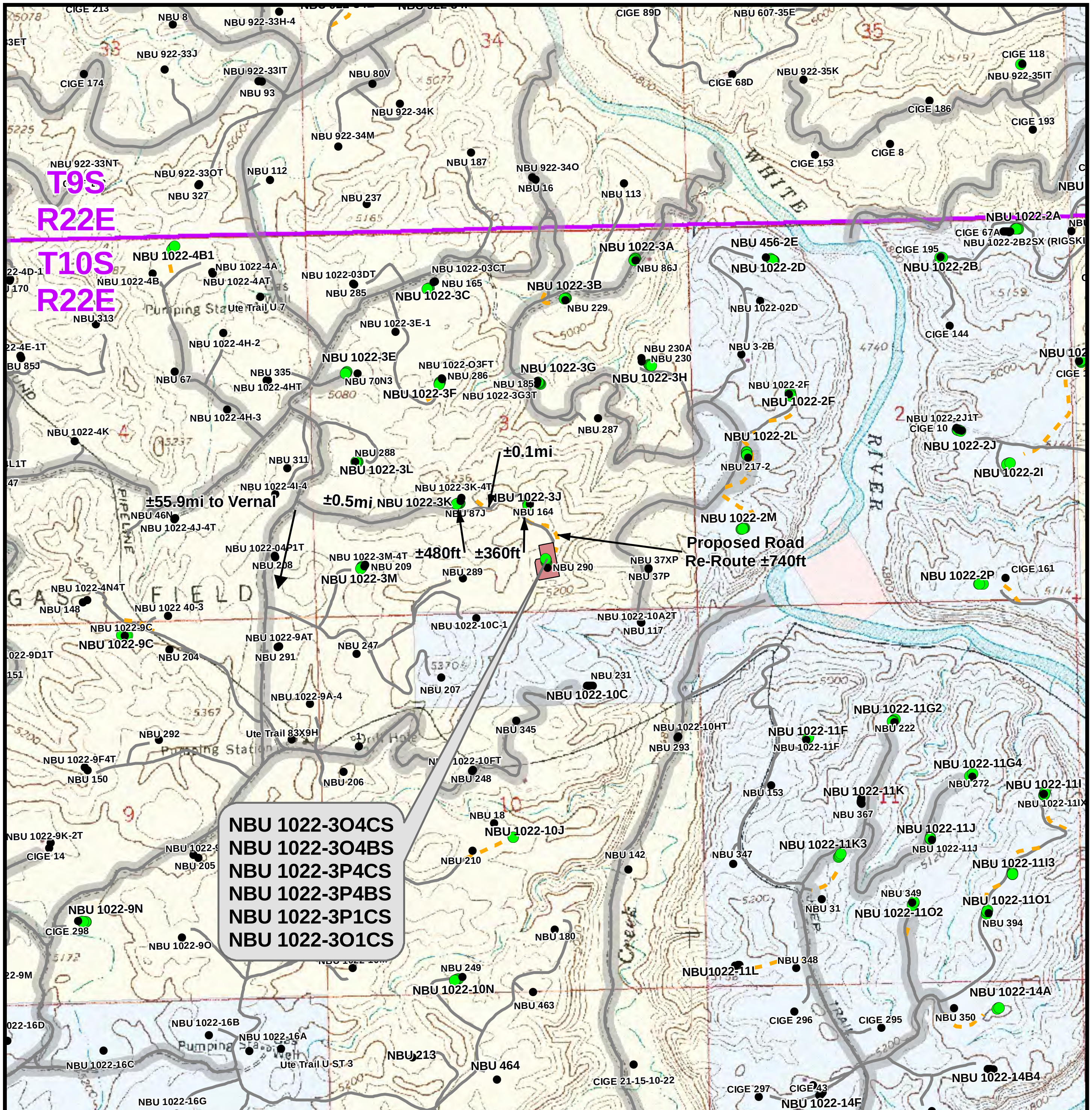
N

SCALE: 1:100,000	NAD83 USP Central	SHEET NO: 12
DRAWN: TL	DATE: 18 Nov 2011	12 OF 18
REVISED:	DATE:	

RECEIVED: May. 21, 2012



Legend

Total Proposed Road Re-Route Length: ±740ft

- Well - Proposed
- Well - Existing
- Well Pad
- Road - Proposed
- Road - Existing
- County Road
- Bureau of Land Management
- Indian Reservation
- State
- Private

WELL PAD - NBU 1022-3O

TOPO B

NBU 1022-3O4CS, NBU 1022-3O4BS, NBU 1022-3P4CS, NBU 1022-3P4BS, NBU 1022-3P1CS & NBU 1022-3O1CS LOCATED IN SECTION 3, T10S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH

Kerr-McGee Oil & Gas Onshore L.P.

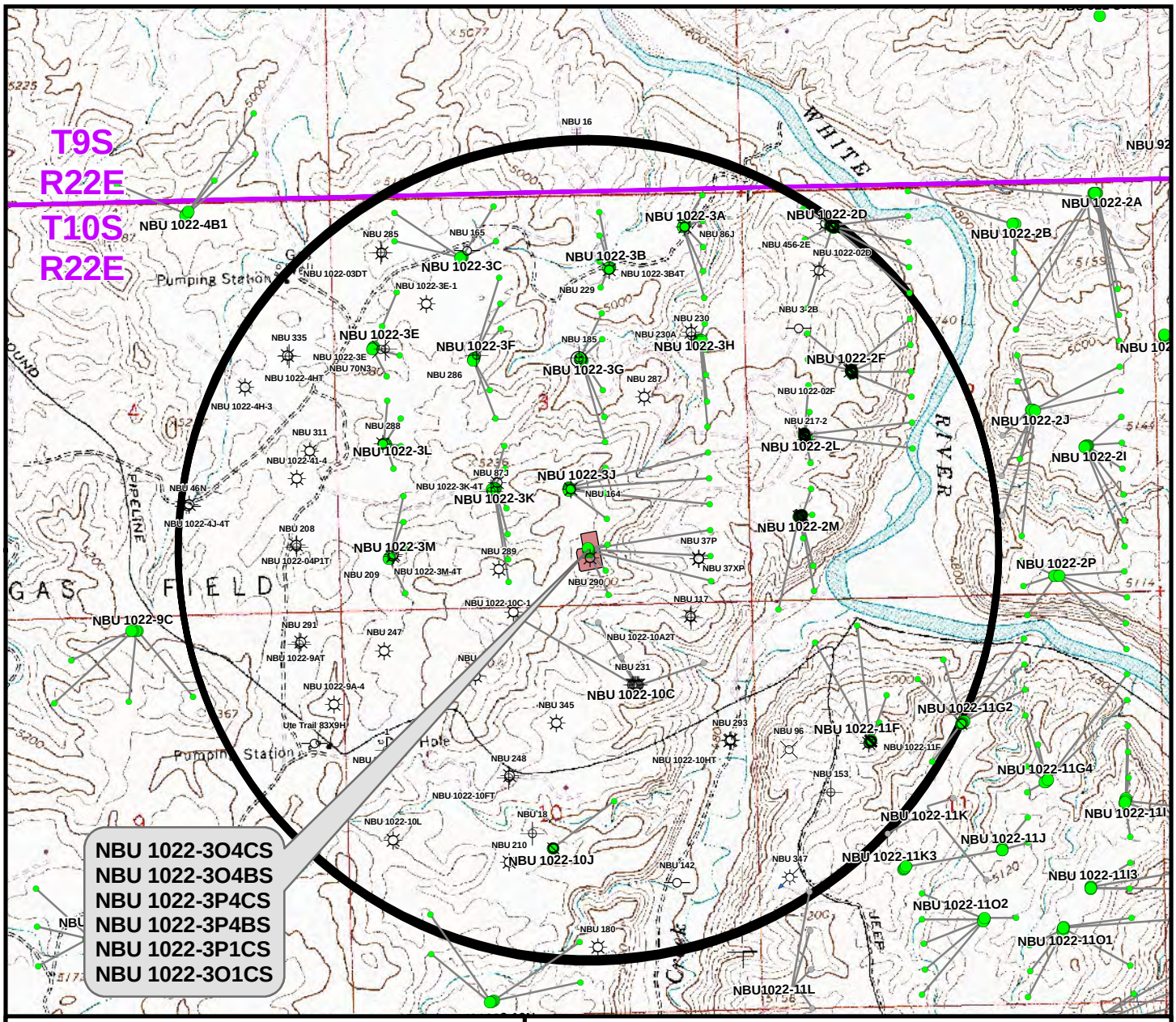
1099 18th Street
Denver, Colorado 80202

609 CONSULTING, LLC
2155 North Main Street
Sheridan, Wyoming 82801
Phone 307-674-0609
Fax 307-674-0182

N

SCALE: 1" = 2,000ft	NAD83 USP Central	SHEET NO:
DRAWN: TL	DATE: 18 Nov 2011	13
REVISED:	DATE:	13 OF 18

RECEIVED: May. 21, 2012



Well locations derived from Utah Division of Oil, Gas and Mining (UDOGM) (oilgas.ogm.utah.gov). The estimated distances from proposed bore locations to the nearest existing bore locations are based on UDOGM data.

Proposed Well	Nearest Well Bore	Footage
NBU 1022-3O4CS	NBU 290	525ft
NBU 1022-3O4BS	NBU 290	257ft
NBU 1022-3P4CS	NBU 37P	321ft
NBU 1022-3P4BS	NBU 37P	159ft
NBU 1022-3P1CS	NBU 37XP	400ft
NBU 1022-3O1CS	NBU 290	283ft

Legend

- Well - Proposed
- Bottom Hole - Proposed
- Bottom Hole - Existing
- Well Path
- Well Pad
- Well - 1 Mile Radius
- Producing
- Spudded
- APD Approved
- Preliminary Location
- Deferred
- Cancelled
- Temporarily Abandoned
- Active Injector
- Location Abandoned
- Plugged & Abandoned
- Shut-In

WELL PAD - NBU 1022-3O

TOPO C
NBU 1022-3O4CS, NBU 1022-3O4BS, NBU 1022-3P4CS, NBU 1022-3P4BS, NBU 1022-3P1CS & NBU 1022-3O1CS
LOCATED IN SECTION 3, T10S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH

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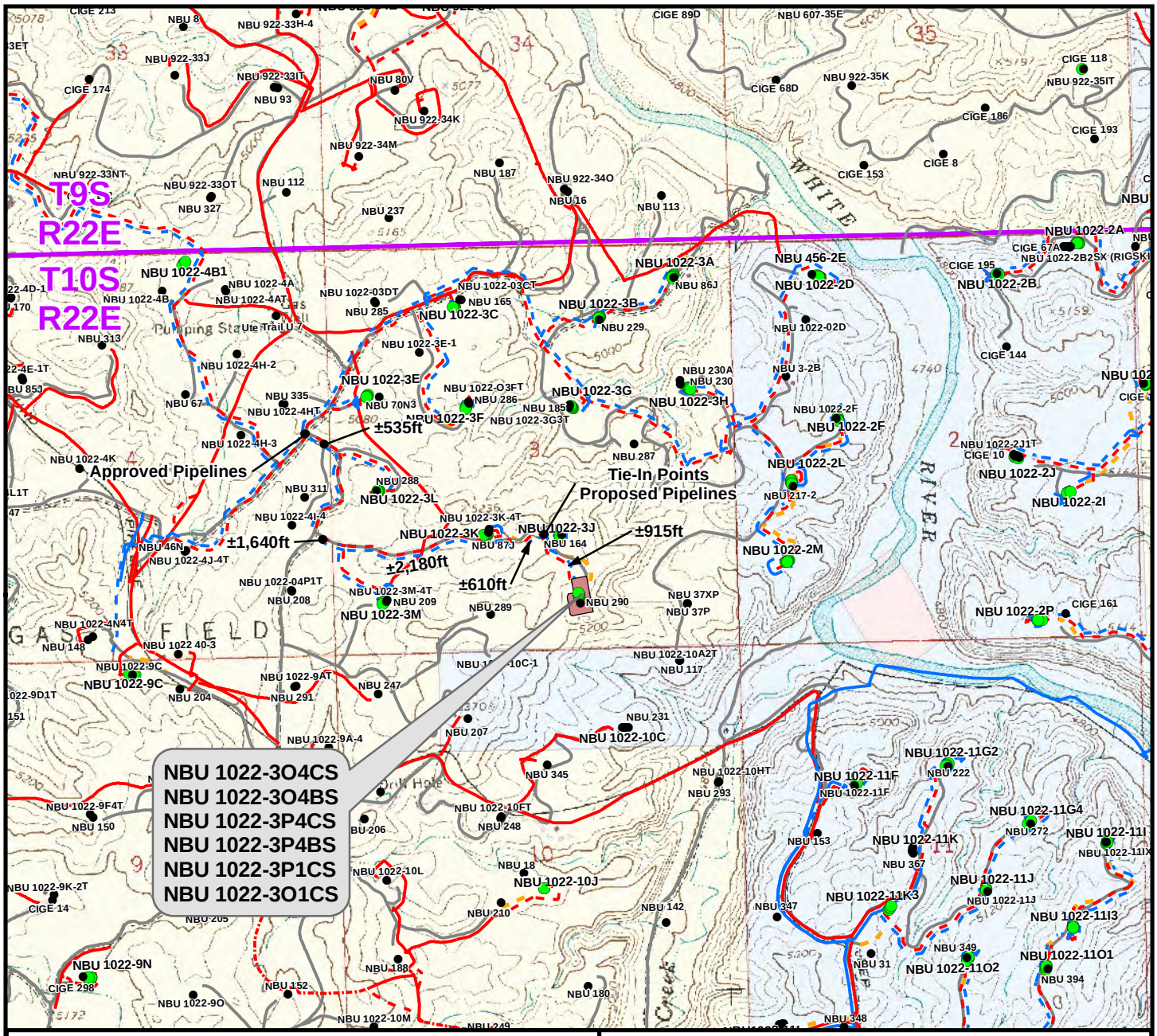
SCALE: 1" = 2,000ft	NAD83 USP Central	SHEET NO: 14
DRAWN: TL	DATE: 18 Nov 2011	14 OF 18
REVISED:	DATE:	

RECEIVED: May. 21, 2012



Proposed Liquid Pipeline	Length
Buried 6"(Max.) (Meter House to Edge of Pad)	±430ft
Buried 6"(Max.) (Edge of Pad to 3J Intersection)	±915ft
TOTAL PROPOSED BURIED LIQUID PIPELINE =	±1,345ft

Proposed Gas Pipeline	Length
Buried 10" (Meter House to Edge of Pad)	±430ft
Buried 10" (Edge of Pad to 3J Intersection)	±915ft
TOTAL PROPOSED BURIED GAS PIPELINE =	±1,345ft

Legend

Well - Proposed; Well - Existing; Well Pad; Gas Pipeline - Proposed; Gas Pipeline - To Be Upgraded; Gas Pipeline - Existing; Liquid Pipeline - Proposed; Liquid Pipeline - Existing; Road - Proposed; Road - Existing; Bureau of Land Management; Indian Reservation; State; Private

WELL PAD - NBU 1022-3O

TOPO D
NBU 1022-3O4CS, NBU 1022-3O4BS,
NBU 1022-3P4CS, NBU 1022-3P4BS,
NBU 1022-3P1CS & NBU 1022-3O1CS
LOCATED IN SECTION 3, T10S, R22E,
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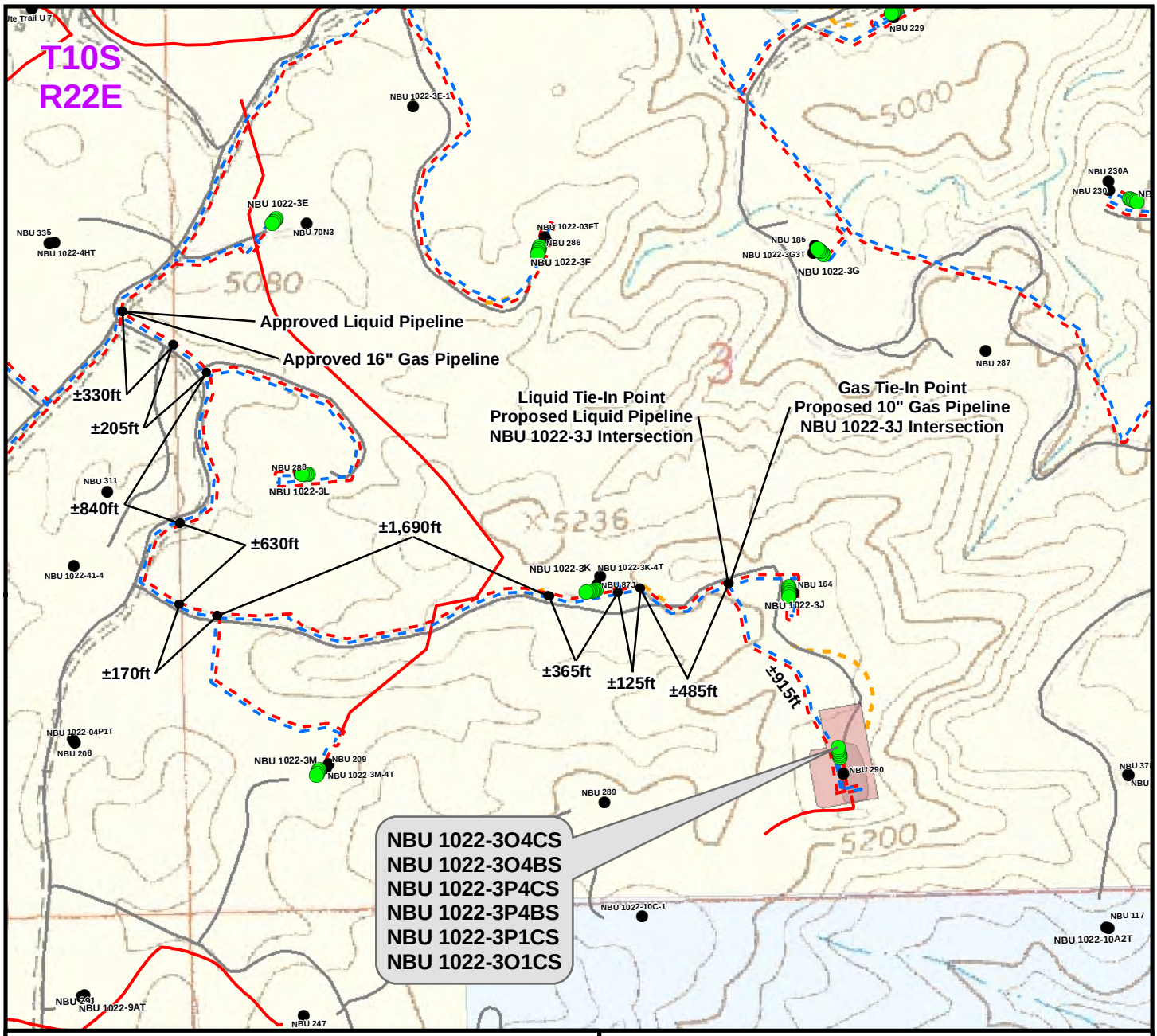
Sheridan, Wyoming 82801
Phone 307-674-0609
Fax 307-674-0182

N

SCALE: 1" = 2,000ft	NAD83 USP Central	SHEET NO: 15
DRAWN: TL	DATE: 18 Nov 2011	15 OF 18
REVISED:	DATE:	

RECEIVED: May. 21, 2012



Proposed Liquid Pipeline	Length
Buried 6"(Max.) (Meter House to Edge of Pad)	±430ft
Buried 6"(Max.) (Edge of Pad to 3J Intersection)	±915ft
TOTAL PROPOSED BURIED LIQUID PIPELINE =	±1,345ft

Proposed Gas Pipeline	Length
Buried 10" (Meter House to Edge of Pad)	±430ft
Buried 10" (Edge of Pad to 3J Intersection)	±915ft
TOTAL PROPOSED BURIED GAS PIPELINE =	±1,345ft

Legend

- Well - Proposed
- Well - Existing
- Well Pad - Proposed
- Well Pad - Existing
- Gas Pipeline - Proposed
- Gas Pipeline - To Be Upgraded
- Gas Pipeline - Existing
- Liquid Pipeline - Proposed
- Liquid Pipeline - Existing
- Road - Proposed
- Road - Existing
- Bureau of Land Management
- Indian Reservation
- State
- Private

WELL PAD - NBU 1022-3O

TOPO D2 (PAD & PIPELINE DETAIL)
NBU 1022-3O4CS, NBU 1022-3O4BS,
NBU 1022-3P4CS, NBU 1022-3P4BS,
NBU 1022-3P1CS & NBU 1022-3O1CS
LOCATED IN SECTION 3, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH

Kerr-McGee Oil & Gas Onshore L.P.

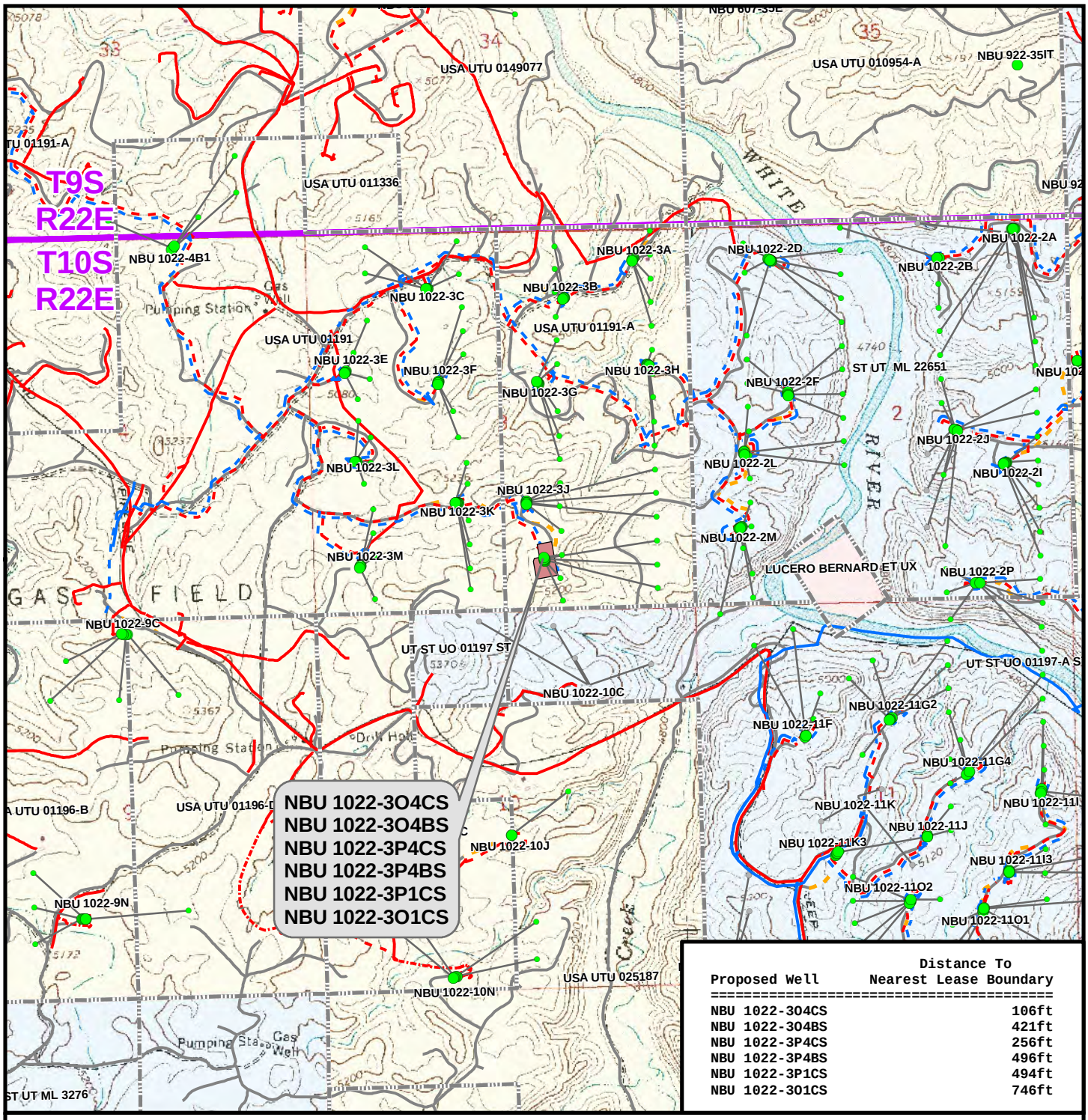
1099 18th Street
Denver, Colorado 80202

609 CONSULTING, LLC
2155 North Main Street
Sheridan, Wyoming 82801
Phone 307-674-0609
Fax 307-674-0182

N

SCALE: 1" = 750ft	NAD83 USP Central	SHEET NO: 16
DRAWN: TL	DATE: 18 Nov 2011	16 OF 18
REVISED:	DATE:	

RECEIVED: May. 21, 2012



Proposed Well	Distance To Nearest Lease Boundary
NBU 1022-3O4CS	106ft
NBU 1022-3O4BS	421ft
NBU 1022-3P4CS	256ft
NBU 1022-3P4BS	496ft
NBU 1022-3P1CS	494ft
NBU 1022-3O1CS	746ft

Legend

- Well - Proposed
- Bottom Hole - Proposed
- Bottom Hole - Existing
- Well Path
- Well Pad
- Lease Boundary
- Gas Pipeline - Proposed
- Gas Pipeline - To Be Upgraded
- Gas Pipeline - Existing
- Liquid Pipeline - Proposed
- Liquid Pipeline - Existing
- Road - Proposed
- Road - Existing
- Bureau of Land Management
- Indian Reservation
- State
- Private

WELL PAD - NBU 1022-3O

TOPO E
NBU 1022-3O4CS, NBU 1022-3O4BS, NBU 1022-3P4CS, NBU 1022-3P4BS, NBU 1022-3P1CS & NBU 1022-3O1CS
LOCATED IN SECTION 3, T10S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH

Kerr-McGee Oil & Gas Onshore L.P.
1099 18th Street
Denver, Colorado 80202

609 CONSULTING, LLC
2155 North Main Street
Sheridan, Wyoming 82801
Phone 307-674-0609
Fax 307-674-0182

N

SCALE: 1" = 2,000ft	NAD83 USP Central	SHEET NO: 17
DRAWN: TL	DATE: 18 Nov 2011	17 OF 18
REVISED:	DATE:	

RECEIVED: May. 21, 2012

Kerr-McGee Oil & Gas Onshore LP
1099 18TH STREET STE. 1800
DENVER, CO 80202
720-929-6708 • FAX 720-929-7708
E-MAIL: JOE.JOHNSON@ANADARKO.COM

February 14, 2012

Ms. Diana Mason
Division of Oil, Gas and Mining
P.O. Box 145801
Salt Lake City, UT 84114-6100

Re: Directional Drilling R649-3-11
NBU 1022-3O4BS
T10S-R22E
Section 3: SWSE/SWSE
Surface: 670' FSL, 2067' FEL
Bottom Hole: 421' FSL, 1847' FEL
Uintah County, Utah

Dear Ms. Mason:

Pursuant to the filing of Kerr-McGee Oil & Gas Onshore LP's (Kerr-McGee) Application for Permit to Drill regarding the above referenced well, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to the Exception to Location and Siting of Wells.

- Kerr-McGee's NBU 1022-3O4BS is located within the Natural Buttes Unit area.
- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing road and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

Therefore, based on the above stated information Kerr-McGee Oil & Gas Onshore LP requests the permit be granted pursuant to R649-3-11.

Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP

Joseph D. Johnson
Landman

RECEIVED: May. 21, 2012

RECEIVED
SEP 18 2008
BLM VERNAL, UTAH

RECEIVED
FEB 27 2012
BLM VERNAL, UTAH

RECEIVED
AUG 08 2012
DIV. OF OIL, GAS & MINING

Form 3160-3
(August, 2007)

FORM APPROVED
OMB NO. 1004-0137
Expires July 31, 2010

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: UTU-01191A

6. If Indian, Allottee or Tribe Name: N/A

1a. Type of Work: [X] DRILL [ ] REENTER

7. If Unit or CA Agreement, Name and No.: UTU63047A

1b. Type of Well: [ ] Oil Well [X] Gas Well [ ] Other [ ] Single Zone [X] Multiple Zone

8. Lease Name and Well No.: NBU 1022-3O4BS

2. Name of Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API Well No.: **4304750168**

3a. Address: P.O. BOX 173779, DENVER, COLORADO 80202-3779

3b. Phone No. *(include area code)*: PHONE 720-929-6086, FAX 720-929-7086

10. Field and Pool, or Exploratory: NATURAL BUTTES

4. Location of well *(Report location clearly and In accordance with any State requirements.*)*

At surface: SWSE 670 FSL 2067 FEL LAT = 39.972543 LONG = -109.424037

At proposed prod. Zone: SWSE 421 FSL 1847 FEL LAT = 39.971862 LONG = -109.42325

11. Sec.,T.,R.,M.,or Blk.and Survey or Area: 3 T 10S R 22E

14. Distance in miles and direction from the nearest town or post office*: Approximately 57 miles Southeast from Vernal, Utah

12. County or Parish: UINTAH

13. State: UT

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drlg. unit line, if any): 421

16. No. of acres in lease: 1363.21

17. Spacing Unit dedicated to this well:

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: 257

19. Proposed Depth: 8847 MD, 8825 TVD

20. BLM/ BIA Bond No. on file: WYB000291

21. Elevations (Show whether DF. RT, GR, etc.): 5278.4 GR

22. Approximate date work will start*: 8/8/2012

23. Estimated duration: 60-90 DAYS

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1 shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by existing bond on file(see item 20 above).
5. Operator certification.
6. Such other site specific information and/ or plans as may be required by the a authorized officer.

25. Signature: Gina T. Becker — Name *(Printed/ Typed)*: GINA T BECKER — Date: February 16, 2012

Title: REGULATORY ANALYST II

Approved By *(Signature)*: Jeff Tongue — Name *(Printed/ Typed)*: Jerry Kenczka — Date: AUG 02 2012

Title: Assistant Field Manager Lands & Mineral Resources — Office: VERNAL FIELD OFFICE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

CONDITIONS OF APPROVAL ATTACHED

Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Kerr-McGee Oil & Gas Onshore, L.P. hereby certifies that it is authorized by the proper lease interest owners and responsible under the terms and conditions of the lease to conduct lease operation associated with this application.

UDOGM

APD posted 9/22/08

09SX50042A

NOTICE OF APPROVAL

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VERNAL FIELD OFFICE
170 South 500 East VERNAL, UT 84078 (435) 781-4400

CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company:	**Kerr-McGee Oil & Gas Onshore, LP**	**Location:**	**SWSE Sec. 3, T10S, R22E**
Well No:	**NBU 1022-3O4BS**	**Lease No:**	**UTU-01191A**
API No:	**43-047-50168**	**Agreement:**	**Natural Buttes**

OFFICE NUMBER: (435) 781-4400

OFFICE FAX NUMBER: (435) 781-3420

A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR FIELD REPRESENTATIVE TO INSURE COMPLIANCE

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. **This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.**

NOTIFICATION REQUIREMENTS

Location Construction (Notify Environmental Scientist)	-	Forty-Eight (48) hours prior to construction of location and access roads.
Location Completion (Notify Environmental Scientist)	-	Prior to moving on the drilling rig.
Spud Notice (Notify Petroleum Engineer)	-	Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to running casing and cementing all casing strings to: blm_ut_vn_opreport@blm.gov
BOP & Related Equipment Tests (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify Petroleum Engineer)	-	Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

SURFACE USE PROGRAM
CONDITIONS OF APPROVAL (COAs)

- All new and replacement internal combustion gas field engines of less than or equal to 300 design-rated horse power must not emit more than 2 grams of NOx per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower-hour.

- All new and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 grams of NOx per horsepower-hour.

- The following will be used as standard operating procedures: Green completion or controlled VOC emissions methods with 90% efficiency for Oil or Gas Atmospheric Storage Tanks, VOC Venting controls or flaring, Glycol Dehydration and Amine Unites, Well Completion, Re-Completion, Venting, and Planned Blowdown Emissions.

- All reclamation activities will comply with the Green River Reclamation Guidelines

- All vehicles and equipment shall be cleaned either through power-washing, or other approved method, if the vehicles or equipment were previously operated outside the Uinta Basin, to prevent weed seed introduction.

- All disturbance areas shall be monitored for noxious weeds annually, for a minimum of three growing seasons following completion of project or until desirable vegetation is established

- Noxious and invasive weeds will be controlled by the proponent throughout the area of project disturbance.

- Noxious weeds will be inventoried and reported to BLM in the annual reclamation report. Where an integrated pest management program is applicable, coordination has been undertaken with the state and local management program (if existing). A copy of the pest management plan will be submitted for each project.

- A pesticide use proposal (PUP) will be obtained for the project, by the proponent if applicable.

- A permitted paleontologist is to be present to monitor construction at all well pads during all surface disturbing actives: examples include the following; building of the well pad, access road, and pipelines.

To maintain compliance with current cactus survey protocols, the following measures will be required

1. If construction does not occur within 4 years of the original survey date, new 100% clearance surveys will be required.
2. Prior to construction within 4 years of the original survey date, a spot check survey will be required during the year of construction. KMG and their respective 3rd party surveyor will refer to the current *Sclerocactus* Spot Check Survey Methods, to determine site specific survey distances and intensity levels.
3. Spot check reports will be reported to the BLM and the US Fish and Wildlife Service.
4. Construction will not commence until written approval is received from the BLM

Discovery Stipulation: Reinitiation of section 7 consultation with the USFWS will be sought immediately if any loss of plants or occupied habitat for Uinta Basin hookless cactus is anticipated as a result of project activities.

- Construction or drilling is not allowed from January 1 – August 31 on the NBU 1022-3O pad to minimize impacts during golden eagle nesting.

- If it is anticipated that construction or drilling will occur during the given timing restriction, a BLM or qualified biologist shall be notified to conduct surveys for raptors. Depending upon the results of the surveys, permission to proceed may or may not be granted by the Authorized Officer.

- The best method to avoid entrainment is to pump from an off-channel location – one that does not connect to the river during high spring flows. An infiltration gallery constructed in a BLM and Service approved location is best.

- If the pump head is located in the river channel where larval fish are known to occur, the following measures apply:
  a. do not situate the pump in a low-flow or no-flow area as these habitats tend to concentrate larval fishes;
  b. limit the amount of pumping, to the greatest extent possible, during that period of the year when larval fish may be present (April 1 to August 31); and
  c. limit the amount of pumping, to the greatest extent possible, during the pre-dawn hours as larval drift studies indicate that this is a period of greatest daily activity.

- Screen all pump intakes with 3/32 inch mesh material.

- Approach velocities for intake structures will follow the National Marine Fisheries Service's document "Fish Screening Criteria for Anadromous Salmonids". For projects with an in-stream intake that operate in stream reaches where larval fish may be present, the approach velocity will not exceed 0.33 feet per second (ft/s).

- Report any fish impinged on the intake screen to the Service (801.975.3330) and the Utah Division of Wildlife Resources:
  Northeastern Region
  152 East 100 North, Vernal, UT 84078
  Phone: (435) 781-9453

- Kerr McGee can only use the following water source:
  Permit # 49-2307 JD Field Services Green River-Section 15, T2N, R22E

DOWNHOLE PROGRAM
CONDITIONS OF APPROVAL (COAs)

SITE SPECIFIC DOWNHOLE COAs:

- A copy of Kerr McGee's Standard Operating Practices (SOP version: dated 7/17/08 and approved 7/28/08 shall be on location.
- Surface casing cement shall be brought to surface.
- Production casing cement shall be brought 200' up and into surface casing.

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and **NOT** by the rig pumps. Test shall be reported in the driller's log.
- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.
- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- **Cement baskets shall not be run on surface casing.**
- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal Field Office.
- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each

encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.

- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.

- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM, Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.

- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.

- **Please submit an electronic copy of all other logs run on this well in LAS format to BLM_UT_VN_Welllogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM.**

- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

OPERATING REQUIREMENT REMINDERS:

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.

- For information regarding production reporting, contact the Office of Natural Resources Revenue (ONRR) at www.ONRR.gov.

- Should the well be successfully completed for production, the BLM Vernal Field office must be notified when it is placed in a producing status. Such notification will be by written communication and must be received in this office by not later than the fifth business day following the date on which the well is placed on production. The notification shall provide, as a minimum, the following informational items:

    - Operator name, address, and telephone number.

    - Well name and number.

    - Well location (¼¼, Sec., Twn, Rng, and P.M.).

    - Date well was placed in a producing status (date of first production for which royalty will be paid).

    - The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).

    - The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.

    - Unit agreement and/or participating area name and number, if applicable.

    - Communitization agreement number, if applicable.

- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.

- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.

- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs,

core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.

- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office Petroleum Engineers will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports shall be submitted to the BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall be identified as the point of sale or allocation for royalty purposes.

- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.

- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be obtained orally, but such approval does not waive the written report requirement.

- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover equipment shall be removed from a well to be placed in a suspended status without prior approval of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior approval of the BLM Vernal Field Office shall be obtained and notification given before resumption of operations.

- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.

- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-01191-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 1022-3O4BS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047501680000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6526

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0670 FSL 2067 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSE Section: 03 Township: 10.0S Range: 22.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 12/24/2012	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
☐ SPUD REPORT Date of Spud:	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	✓ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.

Approved by the Utah Division of Oil, Gas and Mining

Date: December 12, 2012

By:

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Luke Urban	720 929-6501	Regulatory Specialist
SIGNATURE N/A		**DATE** 12/11/2012

RECEIVED: Dec. 11, 2012

The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047501680000

API: 43047501680000
Well Name: NBU 1022-3O4BS
Location: 0670 FSL 2067 FEL QTR SWSE SEC 03 TWNP 100S RNG 220E MER S
Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.
Date Original Permit Issued: 12/24/2008

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

- **If located on private land, has the ownership changed, if so, has the surface agreement been updated?** ○ **Yes** ◉ **No**
- **Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?** ○ **Yes** ◉ **No**
- **Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?** ○ **Yes** ◉ **No**
- **Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?** ○ **Yes** ◉ **No**
- **Has the approved source of water for drilling changed?** ○ **Yes** ◉ **No**
- **Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?** ○ **Yes** ◉ **No**
- **Is bonding still in place, which covers this proposed well?** ◉ **Yes** ○ **No**

Signature: Luke Urban **Date:** 12/11/2012
Title: Regulatory Specialist **Representing:** KERR-MCGEE OIL & GAS ONSHORE, L.P.

RECEIVED: Dec. 11, 2012

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-01191-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 1022-3O4BS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047501680000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 **PHONE NUMBER:** 720 929-6526

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0670 FSL 2067 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSE Section: 03 Township: 10.0S Range: 22.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
✓ SPUD REPORT Date of Spud: 2/12/2013	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

MIRU TRIPLE A BUCKET RIG. DRILLED 20" CONDUCTOR HOLE TO 40'. RAN 14" 36.7# SCHEDULE 10 CONDUCTOR PIPE. CEMENT WITH 28 SACKS READY MIX. SPUD WELL LOCATION ON February 12, 2013 AT 13:30 HRS.

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY
February 15, 2013

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Lindsey Frazier	720 929-6857	Regulatory Analyst II
SIGNATURE N/A		**DATE** 2/14/2013

RECEIVED: Feb. 14, 2013

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 6

ENTITY ACTION FORM

Operator: KERR McGEE OIL & GAS ONSHORE LP
Operator Account Number: N 2995
Address: P.O. Box 173779
city DENVER
state CO zip 80217
Phone Number: (720) 929-6857

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304752936	NBU 1022-3O4CS		SWSE	3	10S	22E	UINTAH
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
B	99999	2900	2/12/2013			2/19/2013	
Comments: MIRU TRIPLE A BUCKET RIG. SPUD WELL LOCATION ON February 12, 2013 AT 10:00 HRS. WSMVD							

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304750168	NBU 1022-3O4BS		SWSE	3	10S	22E	UINTAH
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
B	99999	2900	2/12/2013			2/19/2013	
Comments: MIRU TRIPLE A BUCKET RIG. SPUD WELL LOCATION ON February 12, 2013 AT 13:30 HRS. WSMVD							

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304752939	NBU 1022-3P4CS		SWSE	3	10S	22E	UINTAH
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
B	99999	2900	2/13/2013			2/19/2013	
Comments: MIRU TRIPLE A BUCKET RIG. SPUD WELL LOCATION ON February 13, 2013 AT 07:30 HRS. WSMVD							

ACTION CODES:

- **A** - Establish new entity for new well (single well only)
- **B** - Add new well to existing entity (group or unit well)
- **C** - Re-assign well from one existing entity to another existing entity
- **D** - Re-assign well from one existing entity to a new entity
- **E** - Other (Explain in 'comments' section)

Lindsey Frazier
Name (Please Print)

Signature
REGULATORY ANALYST II
Title
2/14/2013
Date

RECEIVED
FEB 19 2013
Div. of Oil, Gas & Mining

(5/2000)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 6

ENTITY ACTION FORM

Operator: KERR McGEE OIL & GAS ONSHORE LP
Operator Account Number: N 2995
Address: P.O. Box 173779
city DENVER
state CO zip 80217
Phone Number: (720) 929-6857

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304752936	NBU 1022-3O4CS		SWSE	3	10S	22E	UINTAH
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
B	99999	2900	2/12/2013			2/19/2013	
Comments: MIRU TRIPLE A BUCKET RIG. SPUD WELL LOCATION ON February 12, 2013 AT 10:00 HRS. WSMVD							

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304750168	NBU 1022-3O4BS		SWSE	3	10S	22E	UINTAH
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
B	99999	2900	2/12/2013			2/19/2013	
Comments: MIRU TRIPLE A BUCKET RIG. SPUD WELL LOCATION ON February 12, 2013 AT 13:30 HRS. WSMVD							

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304752939	NBU 1022-3P4CS		SWSE	3	10S	22E	UINTAH
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
B	99999	2900	2/13/2013			2/19/2013	
Comments: MIRU TRIPLE A BUCKET RIG. SPUD WELL LOCATION ON February 13, 2013 AT 07:30 HRS. WSMVD							

ACTION CODES:

- **A** - Establish new entity for new well (single well only)
- **B** - Add new well to existing entity (group or unit well)
- **C** - Re-assign well from one existing entity to another existing entity
- **D** - Re-assign well from one existing entity to a new entity
- **E** - Other (Explain in 'comments' section)

Lindsey Frazier
Name (Please Print)

Signature
REGULATORY ANALYST II
Title
2/14/2013
Date

RECEIVED
FEB 19 2013
Div. of Oil, Gas & Mining

(5/2000)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER:
UTU-01191-A

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:
NATURAL BUTTES

1. TYPE OF WELL
Gas Well

8. WELL NAME and NUMBER:
NBU 1022-3O4BS

2. NAME OF OPERATOR:
KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER:
43047501680000

3. ADDRESS OF OPERATOR:
P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER:
720 929-6526

9. FIELD and POOL or WILDCAT:
NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
0670 FSL 2067 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: SWSE Section: 03 Township: 10.0S Range: 22.0E Meridian: S

COUNTY:
UINTAH

STATE:
UTAH

11.
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
✓ DRILLING REPORT Report Date: 5/3/2013	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

No Activity for the month of April 2013. Well TD at 2,560

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
May 09, 2013

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Teena Paulo	720 929-6236	Staff Regulatory Specialist
SIGNATURE		**DATE**
N/A		5/3/2013

RECEIVED: May. 03, 2013

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-01191-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 1022-3O4BS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047501680000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6526

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0670 FSL 2067 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSE Section: 03 Township: 10.0S Range: 22.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
✓ DRILLING REPORT Report Date: 6/5/2013	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Drilled to 8,843 ft. in May 2013.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
June 11, 2013

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Teena Paulo	720 929-6236	Staff Regulatory Specialist
SIGNATURE		**DATE**
N/A		6/5/2013

RECEIVED: Jun. 05, 2013

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER:
UTU-01191-A

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:
NATURAL BUTTES

1. TYPE OF WELL
Gas Well

8. WELL NAME and NUMBER:
NBU 1022-3O4BS

2. NAME OF OPERATOR:
KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER:
43047501680000

3. ADDRESS OF OPERATOR:
P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER:
720 929-6526

9. FIELD and POOL or WILDCAT:
NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
0670 FSL 2067 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: SWSE Section: 03 Township: 10.0S Range: 22.0E Meridian: S

COUNTY:
UINTAH

STATE:
UTAH

11.
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
✓ DRILLING REPORT Report Date: 7/5/2013	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

No actitivy for the month of June 2013. Well TD at Drilled to 8,843ft.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
July 08, 2013

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Teena Paulo	720 929-6236	Staff Regulatory Specialist
SIGNATURE		**DATE**
N/A		7/5/2013

RECEIVED: Jul. 05, 2013

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER:
UTU-01191-A

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:
NATURAL BUTTES

1. TYPE OF WELL
Gas Well

8. WELL NAME and NUMBER:
NBU 1022-3O4BS

2. NAME OF OPERATOR:
KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER:
43047501680000

3. ADDRESS OF OPERATOR:
P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER:
720 929-6526

9. FIELD and POOL or WILDCAT:
NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
0670 FSL 2067 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: SWSE Section: 03 Township: 10.0S Range: 22.0E Meridian: S

COUNTY:
UINTAH

STATE:
UTAH

11.
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
✓ DRILLING REPORT Report Date: 7/24/2013	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	✓ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

THE SUBJECT WELL WAS PLACED ON PRODUCTION ON 7/24/2013. THE CHRONOLOGICAL WELL HISTORY WILL BE SUBMITTED WITH THE WELL COMPLETION REPORT.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
August 12, 2013

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Teena Paulo	720 929-6236	Staff Regulatory Specialist
SIGNATURE		**DATE**
N/A		7/25/2013

RECEIVED: Jul. 25, 2013

API Well Number: 43047501680000

PBTVD 0726'

Form 3160-4
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No.: UTU01191A

1a. Type of Well ☐ Oil Well ☒ Gas Well ☐ Dry ☐ Other
b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.
Other _____

6. If Indian, Allottee or Tribe Name:

7. Unit or CA Agreement Name and No.: UTU63047A

2. Name of Operator: KERR MCGEE OIL&GAS ONSHORE LP
Contact: TEENA PAULO
E-Mail: teena.paulo@anadarko.com

8. Lease Name and Well No.: NBU 1022-3O4BS

3. Address: PO BOX 173779
DENVER, CO 80217

3a. Phone No. (include area code)
Ph: 720-929-6236

9. API Well No.: 43-047-50168

4. Location of Well (Report location clearly and in accordance with Federal requirements)*

At surface: SWSE 670FSL 2067FEL 39.972543 N Lat, 109.424037 W Lon

At top prod interval reported below: SWSE 431FSL 1854FEL

At total depth: SWSE 414FSL 1849FEL

10. Field and Pool, or Exploratory: NATURAL BUTTES

11. Sec., T., R., M., or Block and Survey or Area: Sec 3 T10S R22E Mer SLB

12. County or Parish: UINTAH

13. State: UT

14. Date Spudded: 02/12/2013

15. Date T.D. Reached: 05/11/2013

16. Date Completed ☐ D & A ☐ Ready to Prod.: 07/24/2013

17. Elevations (DF, KB, RT, GL)*: 5297 KB

18. Total Depth: MD 8843 TVD 8824

19. Plug Back T.D.: MD 8743 TVD 8764

20. Depth Bridge Plug Set: MD TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)
SD/DSN/ACTR-BHV-CBL/GR/CCL/TEMP

22. Was well cored? ☒ No ☐ Yes (Submit analysis)
Was DST run? ☒ No ☐ Yes (Submit analysis)
Directional Survey? ☐ No ☒ Yes (Submit analysis)

23. Casing and Liner Record *(Report all strings set in well)*

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sks. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
20.000	14.000 STL	36.7	0	40		28		0	
11.000	8.625 IJ-55	28.0	26	2556		550		0	
7.875	4.500 I-80	11.6	26	8829		1575		0	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2.375	8206							

25. Producing Intervals / 26. Perforation Record

	Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A)	WASATCH	5434	6716	5434 TO 6716	0.360	43	OPEN
B)	MESAVERDE	6886	8716	6886 TO 8716	0.360	148	OPEN
C)							
D)							

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
5434 TO 8716	PUMP 10,721 BBLS SLICK H2O & 231,341 LBS 30/50 OTTAWA SAND

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
07/24/2013	07/28/2013	24	→	45.0	2659.0	0.0			FLOWS FROM WELL

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
20/64	2015	2329.0	→	45	2659	0		PGW

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
			→					

(See Instructions and spaces for additional data on reverse side)

ELECTRONIC SUBMISSION #217408 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

RECEIVED: Aug. 19, 2013

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
			→					

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
			→					

29. Disposition of Gas *(Sold, used for fuel, vented, etc.)*
SOLD

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth
				GREEN RIVER	1203
				BIRD'S NEST	1664
				MAHOGANY	2093
				WASATCH	4422
				MESAVERDE	6736

32. Additional remarks (include plugging procedure):
The first 210 ft of the surface hole was drilled with a 12 1/4 inch bit. The remainder of the surface hole was drilled with an 11 inch bit. DQX csg was run from surface to 5052 ft; LTC csg was run from 5052 ft. to 8829 ft. Attached is the chronological well history, perforation report and final survey.

33. Circle enclosed attachments:

1. Electrical/Mechanical Logs (1 full set req'd.)
2. Geologic Report
3. DST Report
4. Directional Survey
5. Sundry Notice for plugging and cement verification
6. Core Analysis
7 Other:

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions):

Electronic Submission #217408 Verified by the BLM Well Information System.
For KERR MCGEE OIL&GAS ONSHORE,LP, sent to the Vernal

Name *(please print)* TEENA PAULO Title STAFF REGULATORY SPECIALIST

Signature (Electronic Submission) Date 08/19/2013

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fradulent statements or representations as to any matter within its jurisdiction.

**** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ****

RECEIVED: Aug. 19, 2013

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-3O4BS BLUE		Spud Date: 4/19/2013	
Project: UTAH-UINTAH	Site: NBU 1022-03O PAD		Rig Name No: PROPETRO 12/12, H&P 298/298
Event: DRILLING	Start Date: 4/3/2013		End Date: 5/12/2013
Active Datum: RKB @5,297.00usft (above Mean Sea Level)	UWI: SW/SE/0/10/S/22/E/3/0/0/26/PM/S/670/E/0/2067/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
4/19/2013	4:30 - 8:00	3.50	MIRU	01	B	P		SKID RIG 20' TO NBU 1022-3O4BS, RIG UP SET MATTING BOARD, SET RIG IN PLACE, CATWALK, PIPE RACKS, PLACE BOTTOME HOLE ASSEMBLY
	8:00 - 8:30	0.50	MIRU	01	C	P		PRE SPUD JOB SAFETY MEETING REVEW DIRECTIONAL PLANS AND PLATS AND VERIFY LAT/LONGS AND WELL ORDER VERIFY DIRECTIONAL DRILLERS PLAN IS THE MOST RECENT AND APPROVED VERSION REFERENCE WELLBORE DIAGRAMS FOR EXACT CASING DESIGN AND GENERAL OVERVEW OF WELLBORE, PRIOR TO SPUD. FINISH PICKING UP BHA. PICK UP NOV 1.83 DEGREE BENT MOTOR (RUN #2) - .17 REV/GAL SN (775-77021). PICK UP 12.25 REED DRILL BIT RUN 1 SN (A172027)
	8:30 - 10:00	1.50	DRLSUR	02	B	P	66	SPUD @ 04/19/2013 08:30. DRILL 12.25" HOLE 44'-210' (166', 110'/PER HOUR). 12.25" BIT ON 8th RUN. WEIGHT ON BIT 5-15 K. STROKES PER MINUTE 120 GALLONS PER MINUTE 491. PRESSURE ON/OFF (BOTTOM) 800/600. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. UP/DOWN/ ROTATE 20/20/20 K. DRAG 0 K. CIRCULATE CLOSED LOOP SYSTEM WITH 8.3# WATER. RUNNING VOLUME THROUGH 1 CENTRAFUGE DEWATERING AND, RUNNING VOLUME OVER BOTH SHAKERS. DRILL DOWN TO 210' WITH 6" DRILL COLLARS.
	10:00 - 11:30	1.50	DRLSUR	06	A	P	232	PRE JOB SAFETY MEETING, CIRC 15 MINUTES AND, TRIP OUT TO CHANGE ASSEMBLY. LAY DOWN 6" DRILL COLLARS, BREAK 12 1/4" BIT. MAKE UP REED 11" BIT (1ST RUN) (SN 126867) PICK UP 8" DIRECTIONAL ASSEMBLY. INSTALL EM TOOL, TRIP IN HOLE.

RECEIVED: Aug. 19, 2013

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-3O4BS BLUE		Spud Date: 4/19/2013	
Project: UTAH-UINTAH	Site: NBU 1022-03O PAD		Rig Name No: PROPETRO 12/12, H&P 298/298
Event: DRILLING	Start Date: 4/3/2013		End Date: 5/12/2013
Active Datum: RKB @5,297.00usft (above Mean Sea Level)	UWI: SW/SE/0/10/S/22/E/3/0/0/26/PM/S/670/E/0/2067/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	11:30 - 18:00	6.50	DRLSUR	02	B	P	232	DRILL 11". SURFACE HOLE 210'-1180', (970', 149'/PER HOUR). WEIGHT ON BIT 18-25 K. STROKES PER MINUTE 120 GALLONS PER MINUTE 491. PRESSURE ON/OFF(BOTTOM) 900/700. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. UP/DOWN/ ROT 50/40/45 K. DRAG 5 K. SLIDING 15' PER 90'OF ROTATION GETTING 1.5 DEGREE BUILD RATES CURRENTLY 6' NORTH 2' LEFT OF THE LINE CIRCULATE CLOSED LOOP SYSTEM WITH 8.4# WATER. RUNNING VOLUME THROUGH 1 CENTRAFUGE DEWATERING AND, RUNNING VOLUME OVER BOTH SHAKERS. NO HOLE ISSUES.
	18:00 - 22:30	4.50	DRLSUR	02	B	P	1202	DRILL 11". SURFACE HOLE 1180'-1620, (440', 97'/PER HOUR). WEIGHT ON BIT 18-25 K. STROKES PER MINUTE 120 GALLONS PER MINUTE 491. PRESSURE ON/OFF(BOTTOM) 1300/1100. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. UP/DOWN/ ROT 65/45/55 K. DRAG 10 K. SLIDING 15' PER 90'OF ROTATION GETTING 1.5 DEGREE BUILD RATES CURRENTLY 10' NORTH 2' LEFT OF THE LINE CIRCULATE CLOSED LOOP SYSTEM WITH 8.4# WATER. RUNNING VOLUME THROUGH 1 CENTRAFUGE DEWATERING AND, RUNNING VOLUME OVER BOTH SHAKERS. PUT AIR ON THE HOLE @ 1800 CFM @ 1500'.
	22:30 - 0:00	1.50	DRLSUR	22	L	Z	1642	***(TWISTED OFF DRILL PIPE) CURRENT DEPTH 1620', DURRING A SLIDE THE STRING TORQUED UP AND TWISTED OFF 7 JOINTS OF DRILL PIPE DOWN(210') TRIPED OUT 7 JOINTS TO TWIST OFF. WAITING ON FISHING TOOLS(OVERSHOT/BUMPER SUB).
4/20/2013	0:00 - 4:00	4.00	DRLSUR	19	A	Z	1642	***(TWISTED OFF DRILL PIPE) CURRENT DEPTH 1620', DURRING A SLIDE THE STRING TORQUED UP AND TWISTED OFF 7 JOINTS OF DRILL PIPE DOWN(210') PICKED UP OVERSHOT AND GOT ON TOP OF FISH CIRCULATED THROUGH FISH GETTING FREE, TRIP OUT WITH FISH
	4:00 - 8:00	4.00	DRLSUR	06	A	Z	1642	***(TRIP PIPE) TRIPPING OUT AND BACK TO BOTTOM TO ENSURE ALL IS GOOD

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-3O4BS BLUE		Spud Date: 4/19/2013	
Project: UTAH-UINTAH	Site: NBU 1022-03O PAD		Rig Name No: PROPETRO 12/12, H&P 298/298
Event: DRILLING	Start Date: 4/3/2013		End Date: 5/12/2013
Active Datum: RKB @5,297.00usft (above Mean Sea Level)	UWI: SW/SE/0/10/S/22/E/3/0/0/26/PM/S/670/E/0/2067/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	8:00 - 12:00	4.00	DRLSUR	02	B	P	1642	DRILL 11". SURFACE HOLE 1620'-2160', (540', 135'/PER HOUR). WEIGHT ON BIT 18-25 K. STROKES PER MINUTE 120 GALLONS PER MINUTE 491. PRESSURE ON/OFF(BOTTOM) 1400/1200. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. UP/DOWN/ ROT 75/55/65 K. DRAG 10 K. SLIDING 15' PER 90'OF ROTATION GETTING 1.5 DEGREE BUILD RATES CURRENTLY 1' NORTH 5' LEFT OF THE LINE CIRCULATE CLOSED LOOP SYSTEM WITH 8.4# WATER. RUNNING VOLUME THROUGH 1 CENTRAFUGE DEWATERING AND, RUNNING VOLUME OVER BOTH SHAKERS. PUT AIR ON THE HOLE @ 1800 CFM @ 1500'.
	12:00 - 16:00	4.00	DRLSUR	02	B	P	2182	DRILL 11". SURFACE HOLE 2160'-2560', (400', 100'/PER HOUR). WEIGHT ON BIT 18-25 K. STROKES PER MINUTE 120 GALLONS PER MINUTE 491. PRESSURE ON/OFF(BOTTOM) 1450/1200. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. UP/DOWN/ ROT 80/60/70 K. DRAG 10 K. SLIDING 15' PER 90'OF ROTATION GETTING 1.5 DEGREE BUILD RATES CURRENTLY 4' SOUTH 5' LEFT OF THE LINE CIRCULATE CLOSED LOOP SYSTEM WITH 8.4# WATER. RUNNING VOLUME THROUGH 1 CENTRAFUGE DEWATERING AND, RUNNING VOLUME OVER BOTH SHAKERS. PUT AIR ON THE HOLE @ 1800 CFM @ 1500'.
	16:00 - 18:00	2.00	DRLSUR	05	A	P		CIRCULATE AND CONDITION HOLE, VOLUME IS CLEAN COMING OVER SHAKERS, 4-400 BBL UPRIGHT'S FULL AND 2-400 BBL UPRIGHTS EMPTY, MUD TANKS FULL.
	18:00 - 21:00	3.00	CSGSUR	06	D	P		TRIP OUT OF HOLE, LAY DOWN DRILL STRING, BOTTOM HOLE ASSEMBLY, DIRECTIONAL TOOLS, MOTOR AND, BIT. CLEAR TOOL AREA.
	21:00 - 22:00	1.00	CSGSUR	06	D	P		PRE JOB SAFETY MEETING, MOVE PIPE RACKS AND CATWALK. PULL DIVERTER HEAD. RIG UP TO RUN SURFACE CASING. CLEAR UNRELATED TOOLS.

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-3O4BS BLUE		Spud Date: 4/19/2013	
Project: UTAH-UINTAH	Site: NBU 1022-03O PAD		Rig Name No: PROPETRO 12/12, H&P 298/298
Event: DRILLING	Start Date: 4/3/2013		End Date: 5/12/2013
Active Datum: RKB @5,297.00usft (above Mean Sea Level)	UWI: SW/SE/0/10/S/22/E/3/0/0/26/PM/S/670/E/0/2067/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	22:00 - 0:00	2.00	CSGSUR	12	C	P		RUN 57 JOINTS OF 8-5/8". 28# J-55 LTC CASING. RAN 1 CENTRALIZER ON FIRST THREE JOINTS, AND EVERY OTHER JOINT FOR 2 JOINTS FOR A TOTAL OF 5 CENTRALIZERS. RUN A TOTAL OF 57 JOINTS. RUN CASING TO BOTTOM WITH NO PROBLEMS. SET FLOAT SHOE @ 2534.15' KB. SET TOP OF BAFFLE PLATE @ 2487.95' KB.
4/21/2013	0:00 - 2:00	2.00	CSGSUR	12	E	P		PRE JOB SAFETY MEETING, RELEASE RIG @ 04/21/2013 02:00 RAN 200' OF 1". PIPE DOWN BACK-SIDE OF CASING. PRESSURE TEST LINES TO 2000 PSI. PUMP 145 BBLS OF WATER AHEAD. MIX AND PUMP 20 BBLS OF 8.5# GEL WATER AHEAD. MIX AND PUMP (300 sx) 61.4 BBLS OF 15.8.8# 1.15 YIELD. DROP PLUG ON FLY, DISPLACE WITH 155 BBLS OF H2O, NO RETURNS THROUGH OUT JOB, FINAL LIFT OF 300 PSI AT 3 BBL/MINUTE. BUMP THE PLUG WITH 600 PSI, HELD 600 PSI FOR 5 MINUTES, TESTED FLOAT AND FLOAT DID NOT HOLD. SHUT DOWN AND WASH UP.
	2:00 - 2:00	0.00	CSGSUR	12	E	P		PUMP CEMENT DOWN ONE INCH PIPE WITH 150 sx (30.7 bbls.)SAME CEMENT NO CEMENT RETURNS TO SURFACE. SHUT DOWN AND WASH UP. WAIT 1.5 HOURS ON CEMENT, CEMENT DOWN BACKSIDE W/ 100 sx (24.2 bbls.) SAME CEMENT, 3 BBLS CEMENT RETURNS TO SURFACE. RIG DOWN CEMENTERS. (CEMENT JOB FINISHED @ 04/21/2012 04:00)
5/8/2013	19:00 - 21:00	2.00	MIRU3	01	C	P		SKID RIG TO NBU 1022-304BS,ALIGN OVER WELL,NIPPLE UP BOP, RIG UP AFTER SKID
	21:00 - 0:00	3.00	PRPSPD	15	A	P		CT JSA SURFACE CASING TO 1500 PSI @ 30 MINUTES - PRESSURE TEST PIPE RAMS, BLIND -RAMS, IBOP, FLOOR VALVE, KILL LINES & KILL LINE VALVES, BOP WING VALVES , HCR VALVE + CHOKE LINE; INNER AND OUTER CHOKE VALVES & MANIFOLD TO 250 PSI LOW @ 5 MINUTES + 5000 PSI HIGH @ 10 MINUTES / TEST ANNULAR TO 250 PSI LOW @ 5 MINUTES + 2500 PSI HIGH @ 10 MINUTES / TEST SUPER CHOKE +
5/9/2013	0:00 - 1:00	1.00	PRPSPD	15	A	P		TEST MI SWACO EQUIPMENT TO 1,000 PSI,RIG DOWN TESTER
	1:00 - 1:30	0.50	PRPSPD	14	B	P		INSTALL WEAR BUSHING
	1:30 - 4:00	2.50	PRPSPD	06	A	P		PICK UP MUD MOTOR , BIT , DIRECTIONAL TOOLS,SURFACE TEST SAME,TIH W/ BHA ,BREAK CIRC, TIH TO 2,400'
	4:00 - 5:00	1.00	PRPSPD	07	B	P		LEVEL DERRICK ,PRE SPUD INSPECTION
	5:00 - 6:00	1.00	PRPSPD	02	F	P		FILL PIPE , TAG CMT @ 2,485 DRILL FLOAT TRACK F/ 2,485 ,BAFFLE @ 2,508 ,SHOE @2,552, OPEN HOLE TO 2,582

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-3O4BS BLUE		Spud Date: 4/19/2013	
Project: UTAH-UINTAH	Site: NBU 1022-03O PAD		Rig Name No: PROPETRO 12/12, H&P 298/298
Event: DRILLING	Start Date: 4/3/2013		End Date: 5/12/2013
Active Datum: RKB @5,297.00usft (above Mean Sea Level)	UWI: SW/SE/0/10/S/22/E/3/0/0/26/PM/S/670/E/0/2067/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	6:00 - 14:30	8.50	DRLPRC	02	B	P	2582	DRILL /SLIDE / SURVEY/ F/ 2,582' TO 4,217' = 1635' @ 192.3 FPH WOB 18,000-23,000 TOP DRIVE RPM 55-75 MUD MOTOR RPM 123 PUMPS 130 SPM= 585 GPM PUMP PRESSURE ON/OFF BTM 2,050/1,815 TORQUE ON/OFF BTM 6,000/2,000 PICK UP WT 110,000 SLACK OFF WT 87,000 ROT WT 97,000 SLIDES 60’ IN 45 MIN 3.66 % OF FOOTAGE DRILLED,8.82 %OF HRS DRILLED 75 BBLS FLUID LOSS PUMPING 5-10 BBL SWEEPS EVERY STAND,W/ 3-4% CAL CARB & ANCO FIBER MUD WT 8.6 VIS 29 NOV-D WATER SWACO OFF LINE
	14:30 - 15:00	0.50	DRLPRV	02	B	P	4217	RIG SERVICE
	15:00 - 0:00	9.00	DRLPRV	02	B	P	4217	DRILL /SLIDE / SURVEY/ F/ 4,217 TO 5,800' = 1583' @ 175.8 FPH WOB 18,000-24,000 TOP DRIVE RPM 55-75 MUD MOTOR RPM 123 PUMPS 130 SPM= 585 GPM PUMP PRESSURE ON/OFF BTM 2,180/1,900 TORQUE ON/OFF BTM 8,000/5,000 PICK UP WT 153,000 SLACK OFF WT 115,000 ROT WT 135,000 SLIDES 40’ IN 30 MIN 3.66 % OF FOOTAGE DRILLED,8.82 %OF HRS DRILLED 45 BBLS FLUID LOSS PUMPING 5-10 BBL SWEEPS EVERY STAND,W/ 3-4% CAL CARB & ANCO FIBER MUD WT 9.3 VIS 34 NOV-D WATER SWACO OFF LINE

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-3O4BS BLUE		Spud Date: 4/19/2013	
Project: UTAH-UINTAH	Site: NBU 1022-03O PAD		Rig Name No: PROPETRO 12/12, H&P 298/298
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Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
5/10/2013	0:00 - 6:00	6.00	DRLPRV	02	B	P	5800	DRILL /SLIDE / SURVEY/ F/ 5,800 TO 6,475' = 675' @ 112.5 FPH WOB 18,000-24,000 TOP DRIVE RPM 55-75 MUD MOTOR RPM 123 PUMPS 110 SPM= 495 GPM PUMP PRESSURE ON/OFF BTM 2,000/1,890 TORQUE ON/OFF BTM 8,000/5,000 PICK UP WT 167,000 SLACK OFF WT 126,000 ROT WT 145,000 SLIDES 20' IN 25 MIN 2.9 % OF FOOTAGE DRILLED,5.2 %OF HRS DRILLED 0 BBLS FLUID LOSS PUMPING 5-10 BBL SWEEPS EVERY STAND,W/ 3-4% CAL CARB & ANCO FIBER MUD WT 9.5 VIS 36 NOV-D WATER SWACO OFF LINE
	6:00 - 14:00	8.00	DRLPRV	02	B	P	6475	DRILL /SLIDE / SURVEY/ F/ 6,475 TO 7,239' = 764' @ 95.5 FPH WOB 18,000-24,000 TOP DRIVE RPM 55-75 MUD MOTOR RPM 123 PUMPS 130 SPM= 585 GPM PUMP PRESSURE ON/OFF BTM 2,550/2,350 TORQUE ON/OFF BTM 8,000/5,000 PICK UP WT 167,000 SLACK OFF WT 126,000 ROT WT 145,000 SLIDES 35' IN 60 MIN 2.9 % OF FOOTAGE DRILLED,5.2 %OF HRS DRILLED 0 BBLS FLUID LOSS PUMPING 5-10 BBL SWEEPS EVERY STAND,W/ 3-4% CAL CARB & ANCO FIBER MUD WT 9.5 VIS 36 NOV-D WATER SWACO OFF LINE
	14:00 - 14:30	0.50	DRLPRV	07	A	P		DAILY RIG SERVICE

US ROCKIES REGION

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Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	14:30 - 0:00	9.50	DRLPRV	02	B	P		DRILL /SLIDE / SURVEY/ F/ 7,239 TO 8,350' = 1111' @ 116.9 FPH WOB 18,000-24,000 TOP DRIVE RPM 55-75 MUD MOTOR RPM 123 PUMPS 130 SPM= 585 GPM PUMP PRESSURE ON/OFF BTM 2,400/2,100 TORQUE ON/OFF BTM 9,000 / 4,000 PICK UP WT 215,000 SLACK OFF WT 145,000 ROT WT 173,000 NO SLIDES 0 BBLS FLUID LOSS PUMPING 5-10 BBL SWEEPS EVERY STAND,W/ 3-4% CAL CARB & ANCO FIBER MUD WT 9.0 VIS 33 NOV-D WATER SWACO OFF LINE
5/11/2013	0:00 - 8:00	8.00	DRLPRV	02	B	P		DRILL / SURVEY/ F/ 8,350 TO 8,843 = 493' @ 61.6 FPH WOB 18,000-24,000 TOP DRIVE RPM 55-75 MUD MOTOR RPM 95 PUMPS 130 SPM= 450 GPM PUMP PRESSURE ON/OFF BTM 2,400/2,100 TORQUE ON/OFF BTM 9,000 / 4,000 PICK UP WT 208,000 SLACK OFF WT 160,000 ROT WT 182,000 NO SLIDES 0 BBLS FLUID LOSS PUMPING 5-10 BBL SWEEPS EVERY STAND,W/ 3-4% CAL CARB & ANCO FIBER MUD WT 11.7 VIS 38 NOV- OFF LINE SWACO OFF LINE
	8:00 - 9:30	1.50	DRLPRV	05	C	P		CIRC & COND MUD FOR OPEN HOLE LOGS
	9:30 - 14:30	5.00	DRLPRV	06	E	P		PUMP SLUG, WIPER TRIP TO CSG SHOE / NO TIGHT SPOTS,HOLE GOOD,FLOW CHECK & FILL PIPE@ SHOE, 5,000,TIH,TO 8,753 WASH 90' TO BTM ,2' FILL
	14:30 - 16:00	1.50	DRLPRV	05	A	P		CIRC & COND MUD FOR OPEN HOLE LOGS
	16:00 - 20:30	4.50	EVALPR	06	B	P		TOH,NO TIGHT SPOTS,HOLE TOOK PROPER FLUID, FLOW CHECK @ CSG SHOE,PULL ROT RUBBER,,BREAK BIT LD M MTR,FUNCT TEST PIPE & BLIND RAMS
	20:30 - 0:00	3.50	EVALPR	11	G	P		CTJSA R/U HALLIBURTON RUN TRIPLE COMBO W/ROLLER BOGIE / LOGGER TD 8,836 DRILLER TD 8,843 / LOG OUT
5/12/2013	0:00 - 1:30	1.50	EVALPR	11	G	P		RUN TRIPLE COMBO W/ HALLIBURTON / LOGGER TD 8,836 DRILLER TD 8,843 / LOG OUT TO SURFACE, RIG DOWN
	1:30 - 2:30	1.00	CSGPRO	14	B	P		PULL WEAR BUSHING / X/O BAILS
	2:30 - 4:00	1.50	CSGPRO	12	A	P		CTJSA RIG UP KIMZEY CASERS

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-3O4BS BLUE		Spud Date: 4/19/2013	
Project: UTAH-UINTAH	Site: NBU 1022-03O PAD		Rig Name No: PROPETRO 12/12, H&P 298/298
Event: DRILLING	Start Date: 4/3/2013		End Date: 5/12/2013
Active Datum: RKB @5,297.00usft (above Mean Sea Level)	UWI: SW/SE/0/10/S/22/E/3/0/0/26/PM/S/670/E/0/2067/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	4:00 - 11:00	7.00	CSGPRO	12	C	P		MAKE UP FLOAT EQUIP RUN 93 JOINTS I-80 11.6# LTC 4.5 CASING +116 JOINTS ,I-80,11.6#,BDQX 4.5 CASING+ RELATED TOOLS / BREAKING CIRCULATION @ SELECTED INTERVALS / LANDING CASING IN BOWL @ 8,828' FOR CIRC,& CEMENTING.SHOE @ 8,828,MV MARKER @ 6.751,X/O@ 5,052
	11:00 - 12:30	1.50	CSGPRO	05	D	P		CIRC CASING, R/D KIMZEY,JSA W/ BJ
	12:30 - 15:30	3.00	CSGPRO	12	E	P		INSTALL BJ CMT HEAD , TEST PUMP & LINES TO 5,000 PSI, ,DROP BOTTOM PLUG PUMP 25 BBLS FW, PUMP 495 SKS LEAD CEMENT @ 12.5 PPG, 174 BBL SLURRY (PREM LITE II + .0.25 pps CELLO FLAKE + 5 pps KOL SEAL +0.4 bwocFL52+ .05 lb/sx STATIC FREE + 8% bwoc BENTONITE + .2% bwoc SODIUM META SILICATE + 0.35 % R-3 + 101.8% FRESH WATER / (10.44 gal/sx,1.98 yield) + 1080 SX TAIL @ 14.3 ppg 255 BBL SLURRY (CLS G 50/50 POZ + 10% SALT + .005llbs/sx STATIC FREE + .2% R3 +0.5%bwocEC-1+ .002 GPS FP-6L + 2% BENTONITE + 58.9% FW / (5.94 gal/sx, 1.32 yield) / DROP TOP PLUG & DISPLACE W/ 136.1 BBLS H2O + ADDITIVES / PLUG DOWN @ 15:11 HOURS / FLOATS HELD W/ 1.50 BBLS H2O RETURNED TO INVENTORY/ GOOD CIRC THROUGH OUT 3 BBLS LEAD CMT TO PIT / LIFT PRESSURE @2,645 PSI / BUMP PRESSURE TO 3,308 PSI / TOP OF TAIL CEMENT CALCULATED @ 3,893' / RIG DOWN CMT EQUIPMENT
	15:30 - 16:00	0.50	CSGPRO	12	E	P		FLUSH OUT BOP STACK,& MUD LINES
	16:00 - 17:00	1.00	CSGPRO	12	E	P		SET PACK OFF, CHANGE OUT CASING BAILS
	17:00 - 18:00	1.00	RDMO	14	A	P		NIPPLE DOWN,PREP TO SKID,RIG RELEASED TO NBU 1022-3P4CS 2 18:00 HRS 5/12/2013

1 General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well/Wellbore Information

Well	NBU 1022-3O4BS BLUE	Wellbore No.	OH
Well Name	NBU 1022-3O4BS	Wellbore Name	NBU 1022-3O4BS
Report No.	1	Report Date	7/15/2013
Project	UTAH-UINTAH	Site	NBU 1022-03O PAD
Rig Name/No.		Event	COMPLETION
Start Date	7/10/2013	End Date	7/24/2013
Spud Date	4/19/2013	Active Datum	RKB @5,297.00usft (above Mean Sea Level)
UWI	SW/SE/0/10/S/22/E/3/0/0/26/PM/S/670/E/0/2067/0/0		

1.3 General

Contractor		Job Method		Supervisor	
Perforated Assembly		Conveyed Method			

1.4 Initial Conditions

Fluid Type		Fluid Density	
Surface Press		Estimate Res Press	
TVD Fluid Top		Fluid Head	
Hydrostatic Press		Press Difference	
Balance Cond	NEUTRAL		

1.5 Summary

Gross Interval	5,434.0 (usft)-8,716.0 (usft	Start Date/Time	7/15/2013 12:00AM
No. of Intervals	55	End Date/Time	7/15/2013 12:00AM
Total Shots	191	Net Perforation Interval	58.00 (usft)
Avg Shot Density	3.29 (shot/ft)	Final Surface Pressure	
		Final Press Date	

2 Intervals

2.1 Perforated Interval

Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
7/15/2013 12:00AM	WASATCH/			5,434.0	5,435.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
7/15/2013 12:00AM	WASATCH/			5,446.0	5,447.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
7/15/2013 12:00AM	WASATCH/			5,471.0	5,472.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
7/15/2013 12:00AM	WASATCH/			5,527.0	5,529.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
7/15/2013 12:00AM	WASATCH/			6,047.0	6,048.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
7/15/2013 12:00AM	WASATCH/			6,100.0	6,101.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
7/15/2013 12:00AM	WASATCH/			6,145.0	6,146.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
7/15/2013 12:00AM	WASATCH/			6,168.0	6,169.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
7/15/2013 12:00AM	WASATCH/			6,197.0	6,198.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
7/15/2013 12:00AM	WASATCH/			6,715.0	6,716.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/15/2013 12:00AM	MESAVERDE/			6,886.0	6,887.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/15/2013 12:00AM	MESAVERDE/			6,910.0	6,911.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/15/2013 12:00AM	MESAVERDE/			6,974.0	6,975.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/15/2013 12:00AM	MESAVERDE/			6,984.0	6,985.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
7/15/2013 12:00AM	MESAVERDE/			6,996.0	6,997.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
7/15/2013 12:00AM	MESAVERDE/			7,209.0	7,210.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/15/2013 12:00AM	MESAVERDE/			7,226.0	7,227.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/15/2013 12:00AM	MESAVERDE/			7,350.0	7,351.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/15/2013 12:00AM	MESAVERDE/			7,366.0	7,367.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/15/2013 12:00AM	MESAVERDE/			7,376.0	7,377.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/15/2013 12:00AM	MESAVERDE/			7,398.0	7,399.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/15/2013 12:00AM	MESAVERDE/			7,414.0	7,415.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	

2.1 Perforated Interval (Continued)

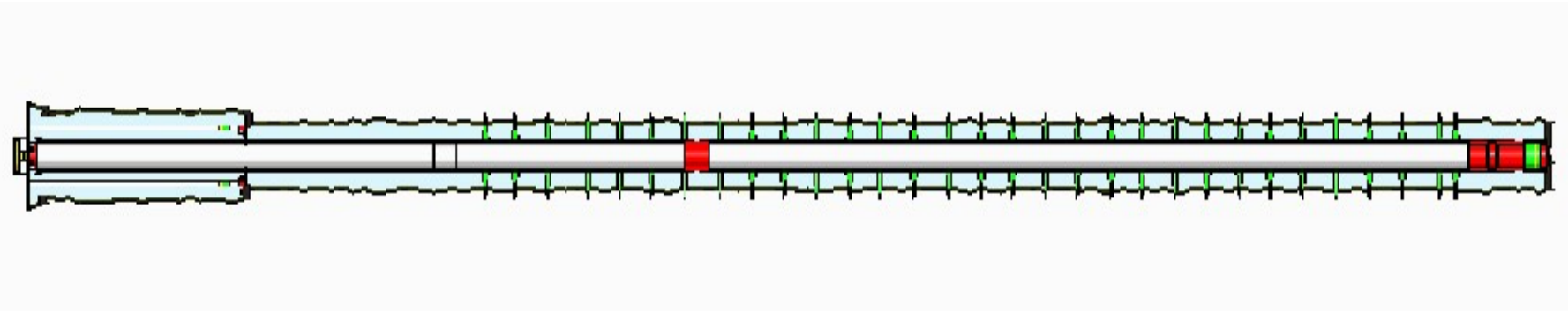
Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
7/15/2013 12:00AM	MESAVERDE/			7,496.0	7,497.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/15/2013 12:00AM	MESAVERDE/			7,524.0	7,525.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/15/2013 12:00AM	MESAVERDE/			7,550.0	7,551.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/15/2013 12:00AM	MESAVERDE/			7,694.0	7,695.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/15/2013 12:00AM	MESAVERDE/			7,717.0	7,718.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/15/2013 12:00AM	MESAVERDE/			7,744.0	7,745.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/15/2013 12:00AM	MESAVERDE/			7,761.0	7,762.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/15/2013 12:00AM	MESAVERDE/			7,884.0	7,885.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/15/2013 12:00AM	MESAVERDE/			7,905.0	7,906.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/15/2013 12:00AM	MESAVERDE/			7,919.0	7,920.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/15/2013 12:00AM	MESAVERDE/			7,958.0	7,959.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/15/2013 12:00AM	MESAVERDE/			7,974.0	7,975.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/15/2013 12:00AM	MESAVERDE/			8,015.0	8,016.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/15/2013 12:00AM	MESAVERDE/			8,025.0	8,026.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/15/2013 12:00AM	MESAVERDE/			8,036.0	8,037.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/15/2013 12:00AM	MESAVERDE/			8,065.0	8,066.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/15/2013 12:00AM	MESAVERDE/			8,104.0	8,105.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/15/2013 12:00AM	MESAVERDE/			8,126.0	8,127.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/15/2013 12:00AM	MESAVERDE/			8,137.0	8,138.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/15/2013 12:00AM	MESAVERDE/			8,177.0	8,178.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/15/2013 12:00AM	MESAVERDE/			8,196.0	8,198.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
7/15/2013 12:00AM	MESAVERDE/			8,227.0	8,228.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/15/2013 12:00AM	MESAVERDE/			8,236.0	8,237.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/15/2013 12:00AM	MESAVERDE/			8,270.0	8,271.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/15/2013 12:00AM	MESAVERDE/			8,300.0	8,301.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/15/2013 12:00AM	MESAVERDE/			8,325.0	8,326.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/15/2013 12:00AM	MESAVERDE/			8,395.0	8,396.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/15/2013 12:00AM	MESAVERDE/			8,413.0	8,414.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/15/2013 12:00AM	MESAVERDE/			8,430.0	8,431.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/15/2013 12:00AM	MESAVERDE/			8,659.0	8,661.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
7/15/2013 12:00AM	MESAVERDE/			8,687.0	8,688.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
7/15/2013 12:00AM	MESAVERDE/			8,707.0	8,708.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
7/15/2013 12:00AM	MESAVERDE/			8,715.0	8,716.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	

3 Plots

3.1 Wellbore Schematic



US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-3O4BS BLUE		Spud Date: 4/19/2013	
Project: UTAH-UINTAH	Site: NBU 1022-03O PAD		Rig Name No: SWABBCO 6/6
Event: COMPLETION	Start Date: 7/10/2013		End Date: 7/24/2013
Active Datum: RKB @5,297.00usft (above Mean Sea Level)	UWI: SW/SE/0/10/S/22/E/3/0/0/26/PM/S/670/E/0/2067/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
6/27/2013	-							
7/10/2013	10:00 - 11:00	1.00	SUBSPR	52	B	P		FILL SURFACE CSG. MIRU CAMERON QUICK TEST. PRESSURE TEST CSG & FRAC VALVES 1ST PSI TEST T/ 7000 PSI. HELD FOR 15 MIN LOST 304 PSI. 2ND PSI TEST T/ 7000 PSI. HELD FOR 15 MIN LOST 234 PSI. 3RD PSI TEST T/ 7000 PSI. HELD FOR 15 MIN LOST 204 PSI.. 4TH PSI TEST T/ 7000 PSI. HELD FOR 5 MIN LOST 69 PSI. WILL SET CIBP IN AM (NOTE CEMENT TOP SURFACE) SUSPECT SORT SHOE NO COMMUNICATION OR MIGRATION WITH SURFACE CSG PRESSURE TEST 8 5/8 X 4 1/2 TO 510 PSI HELD FOR 5 MIN LOST -45 PSI,BLED PSI OFF, REINSTALLED POP OFF SWIFN NO PRESSURE ON SURFACE CSG FILLED WITH 1/2 BBL
7/11/2013	7:00 - 8:00	1.00	SUBSPR	52	C	P		RU WL RIH W 4 1/2" CIBP SET @ 8749 POOH RD WL MIRU CAMERON QUICK TEST. PRESSURE TEST CSG & FRAC VALVES 1ST PSI TEST T/ 7000 PSI. HELD FOR 15 MIN LOST 97 PSI. NO COMMUNICATION OR MIGRATION WITH SURFACE CSG BLEED OFF PSI.
7/12/2013	7:00 - 11:00	4.00	SUBSPR	37		P		PERF STG 1)PU 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. RIH PERFWELL, AS PER PERF DESIGN. POOH. SWIFW
7/15/2013	7:00 - 7:15	0.25	FRAC	48		P		HSM-JSA

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-3O4BS BLUE		Spud Date: 4/19/2013	
Project: UTAH-UINTAH	Site: NBU 1022-03O PAD		Rig Name No: SWABBCO 6/6
Event: COMPLETION	Start Date: 7/10/2013		End Date: 7/24/2013
Active Datum: RKB @5,297.00usft (above Mean Sea Level)	UWI: SW/SE/0/10/S/22/E/3/0/0/26/PM/S/670/E/0/2067/0/0		

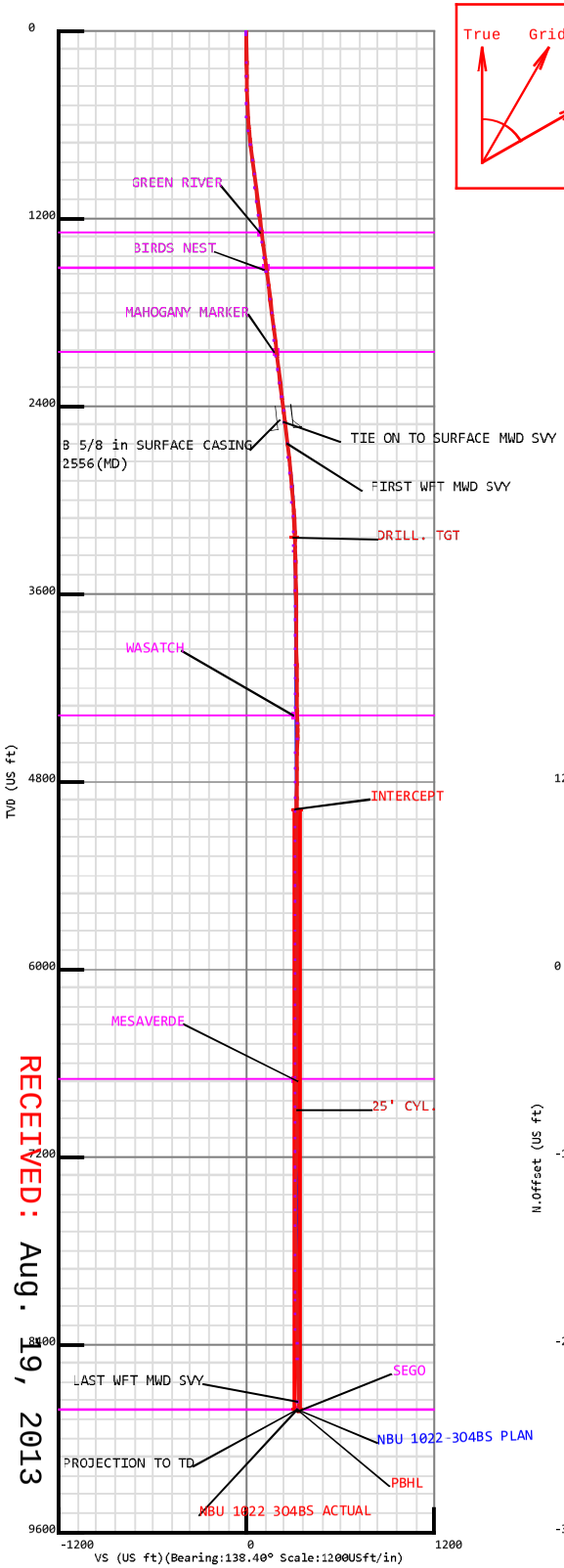
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:15 - 18:00	10.75	FRAC	36	B	P		FRAC STG #1)WHP 1552 PSI, BRK 3633 PSI @ 4.5 BPM. ISIP 2465 PSI, FG. 0.72 ISIP 2635 PSI, FG. 0.74, NPI 170 PSI. X/O TO WL. SET CBP & PERF STG #2 AS DESIGNED X/O TO FRAC. FRAC STG #2)WHP 1348 PSI, BRK 3111 PSI @ 4.7 BPM. ISIP 2059 PSI, FG. 0.69 ISIP 2684 PSI, FG. 0.76, NPI 625 PSI, X/O TO WL. SET CBP & PERF STG #3 AS DESIGNED, X/O TO FRAC. FRAC STG #3)WHP 1658 PSI, BRK 3527 PSI @ 4.8 BPM. ISIP 2346 PSI, FG. 0.73 ISIP 2645 PSI, FG. 0.76, NPI 299 PSI. SWIFN.
7/16/2013	7:00 - 7:15	0.25	FRAC	48		P		HSM-JSA
	7:15 - 17:30	10.25	FRAC	36	B	P		SET CBP & PERF STG #4 AS DESIGNED, XO TO FRAC. FRAC STG #4)WHP 1745 PSI, BRK 3989 PSI @ 4.6 BPM. ISIP 1957 PSI, FG. 0.68 ISIP 2268 PSI, FG. 0.72, NPI 311 PSI, X/O TO WL. SET CBP & PERF STG #5 AS DESIGNED SWIFN.
7/17/2013	6:45 - 7:00	0.25	FRAC	48		P		HSM, KEEPING AN EYE OUT FOR HEAT RELATED STRESS
	7:00 - 14:00	7.00	FRAC	36	B	P		FRAC STG #5] WHP=1,056#, BRK DN PERFS=4,629#, @=5.1 BPM, INTIAL ISIP=1,441#, FG=.63, FINAL ISIP=2,257#, FG=.73, SET PLUG AND PERFORATE STG #6 FRAC STG #6] WHP=1,260#, BRK DN PERFS=3,122#, @=3.8 BPM, INTIAL ISIP=1,991#, FG=.71, FINAL ISIP=2,257#, FG=.75, SET PLUG AND PERFORATE STG #7 FRAC STG #7] WHP=94#, BRK DN PERFS=2,485#, @=3.7 BPM, INTIAL ISIP=1,229#, FG=.62, FINAL ISIP=1,796#, FG=.70, SET PLUUG AND PERFORATE STG #8 FRAC STG #8] WHP=111#, BRK DN PERFS=2,339#, @=4 BPM, INTIAL ISIP=1,234#, FG=.64, FINAL ISIP=1,933#, FG=.75, SWIFN.
7/18/2013	6:45 - 7:00	0.25	FRAC	48		P		HSM, RIGGING DOWN / PINCH POINTS

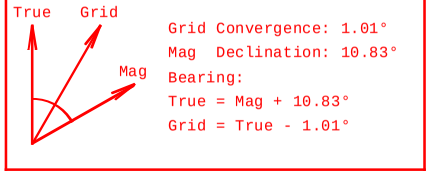
US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-3O4BS BLUE	Spud Date: 4/19/2013	
Project: UTAH-UINTAH	Site: NBU 1022-03O PAD	Rig Name No: SWABBCO 6/6
Event: COMPLETION	Start Date: 7/10/2013	End Date: 7/24/2013
Active Datum: RKB @5,297.00usft (above Mean Sea Level)	UWI: SW/SE/0/10/S/22/E/3/0/0/26/PM/S/670/E/0/2067/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:00 - 12:00	5.00	FRAC	36	B	P		SET PLUG AND PERFORATE STG #9 FRAC STG #9] WHP=138#, BRK DN PERFS=2,838#, @=4 BPM, INTIAL ISIP=1,681#, FG=.75, FINAL ISIP=1,577#, FG=.73, SET TOP KILL TOTAL BBLS=10,721 TOTAL SAND=231,341#
7/24/2013	7:00 - 7:30	0.50	DRLOUT	48		P		PWR SWIVEL
	7:30 - 18:30	11.00	DRLOUT	44	C	P		RIG UP, NDWH,NU BOPS, TIH JTS. RIG UP POWER SWIVEL, BREAK CIRC, PRESURE TEST CSG @ 3000 PSI, MILL 9 PLUGS, 8470', 268 JTS, TIH TO 8749' 276 JTS, C/O 20' SAND, POOH TO 258 JTS, 8205.92', LAND TBG, ND BOP'S, NUWH, PUMP 30 GAL SCALE INHIB, DISPLACE WITH 32 BBLS T-MAC, POBS, 2000#, TEST FLOW LINE TO 3000#, RDMO \ PLUG# 1 5384' 8' SAND 5 MIN 0# KICK PLUG# 2 5559' 15' SAND 5 MIN 0# KICK PLUG# 3 6228' 15' SAND 5 MIN 0# KICK PLUG# 4 7027' 20' SAND 5 MIN 200# KICK PLUG# 5 7445' 30' SAND 5 MIN 150# KICK PLUG# 6 7792' 25' SAND 5 MIN 100# KICK PLUG# 7 8055' 30' SAND 5 MIN 150# KICK PLUG# 8 8217' 20' SAND 5 MIN 100# KICK PLUG# 9 8461' 40' SAND 5 MIN 100# KICK PBTD 8749' BTM PERF 8716' TBG 108 JTS L-8O 3423.75' TOP TBG 150 JTS J-55 4753.14' BTM KB 26.00' HANGER 4.125" .83' SN 1.875" 2.20' EOT 8205.92' NOTE: SHORT JT @ 3558.41' FRAC WTR 10,722 BBLS RCVD 2,500 BBLS LTR 8,222 BBLS
	18:30 - 18:30	0.00	DRLOUT	50				WELL TURNED TO SALES @ 1800 HR ON 7/24/2013. 2300 MCFD, 1920 BWPD, FCP 2420#, FTP 2178#, 18/64" CK.





Anadarko Petroleum Corporation

Weatherford

Survey Data for NBU 1022-304BS

Field: NaturalButtes
Map Unit: USFt Vertical Reference Datum (VRD): MeanSeaLevel
Projected Coordinate System: NAD27/UTMzone12N

Site: NBU 1022-30 PAD
Unit: USFeet TVD Reference: 26'RKB+5271'GL
Company Name:
Position: Northing: 14519954.39USft Latitude: 39.972551°
Easting: 2082157.20USft Longitude: -109.423350°
North Reference: True Grid Convergence: 1.01°
Elevation Above VRD: 5271.00USft

Slot: NBU 1022-304BS
Position:
Offset is from Site centre
+N/-S: 9.84USft Northing: 14519964.20USft Latitude: 39.972578°
+E/-W: -1.40USft Easting: 2082155.62USft Longitude: -109.423355°
Elevation Above VRD: 5271.00USft

API well Number: 43047501680000

Survey Point Information:
DogLeg Severity Unit: °/100.00ft Position offsets from Slot centre

MD (USft)	Inc (°)	Az (°)	TVD (USft)	+N/-S (USft)	+E/-W (USft)	VSec (USft)	DLS (DLSU)	Toolface (°)	Build (DLSU)	Turn (DLSU)	Annotation
2517.00	7.12	140.62	2502.37	-179.18	170.33	247.07	0.90	82.3R	0.16	7.23	TIE ON TO SURFACE MWD SVY
2656.00	6.64	138.25	2640.37	-191.83	181.14	263.72	0.40	150.6L	-0.35	-1.71	FIRST WFT MWD SVY
8793.00	2.00	168.82	8774.51	-254.07	217.66	334.50	0.31	99.0L	0.02	-9.09	LAST WFT MWD SVY
8843.00	2.00	168.82	8824.47	-255.78	218.00	336.01	0.00	0.0R	0.00	0.00	PROJECTION TO TD

Target Set Information:
Name: 304BS
Position offsets from Slot centre

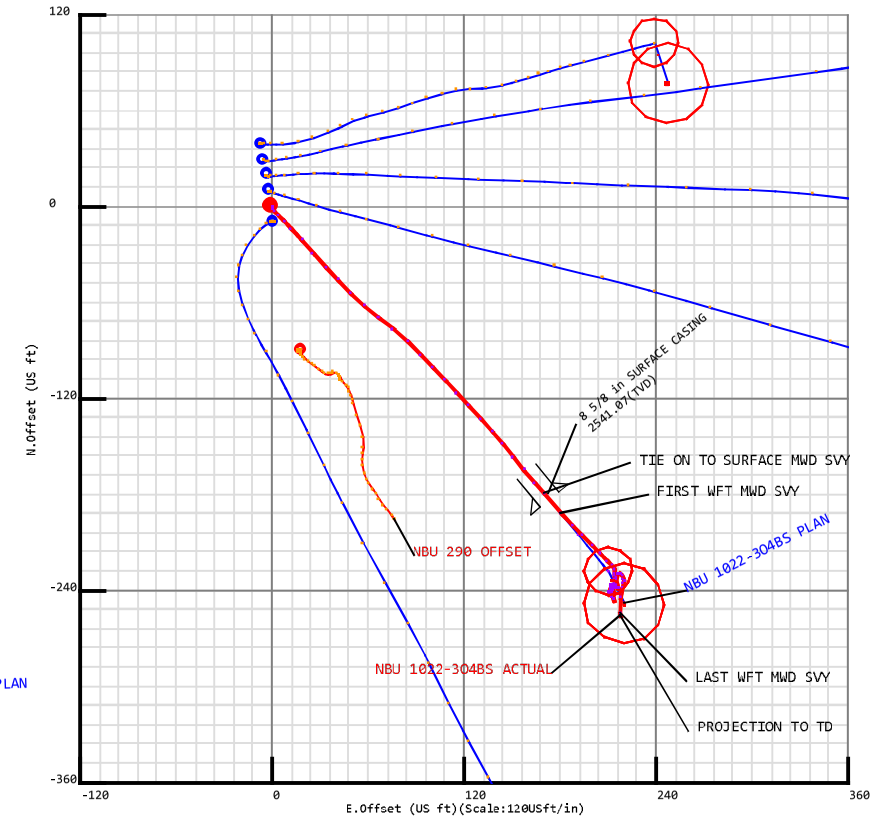
Name	TVD (USft)	+N/-S (USft)	+E/-W (USft)	Lat (°)	Long (°)
PBHL	8825.00	0.00	0.00	39.971896	-109.422568
25'CYL.	6900.50	55.06	248.12	39.971896	-109.422568
DRILL.TGT	3248.69	0.00	0.00	39.971951	-109.422603
INTERCEPT	4976.00	0.00	0.00	39.971934	-109.422593

Formation Point Information:

Name	TVD (USft)	Elevation (USft)	MD (USft)
GREENRIVER	1288.00	4009.00	1293.50
BIRDSNEST	1520.00	3777.00	1527.50
MAHOGANYMARKER	2055.00	3242.00	2066.47
WASATCH	4376.00	921.00	4393.98
MESAVERDE	6702.00	-1405.00	6720.00
SEGO	8825.00	-3528.00	8843.02

Casing Point Information:

Name	MD (USft)	TVD (USft)
85/8inSURFACECASING	2556.00	2541.07



RECEIVED: Aug. 19, 2013

5D Survey Report

Andarko Petroleum

Field Name: *Natural Buttes*
Site Name: *NBU 1022-3O PAD*
Well Name: *NBU 1022-3O4BS*
Survey: *Definitive Survey*

Surveys for the NBU 1022-3O4BS

Site Name NBU 1022-3O PAD	**Units :** US ft	**North Reference** : True	**Convergence Angle :** 1.01
	Position	**Northing :** 14519954.39 US ft	**Latitude :** 39.972551
		Easting : 2082157.20 US ft	**Longitude :** -109.423350
	Site TVD Reference : 26' RKB + 5271' GL		
	Elevation above:5271.00 US ft		
	Comment :		

Slot Name NBU 1022-3O4BS	**Position (Offsets relative to Site Centre)**		
	+N / -S : 9.84 US ft	**Northing :**14519964.20 US ft	**Latitude :** 39.972578
	+E / -W : -1.40 US ft	**Easting :**2082155.62 US ft	**Longitude :** -109.423355
	Slot TVD Reference : Ground Elevation		
	Elevation above : 5271.00 US ft		
	Comment :		

Well Name NBU 1022-3O4BS	**Type :** Main well	**UWI :**	
	Rig Height *Drill Floor* : 26.00 US ft **Relative to :** 5297.00 US ft	**Comment :**	
	Closure Distance : 336.077 US ft	**Closure Azimuth :** 139.559°	
	Vertical Section (Position of Origin Relative to Slot)		
	+N / -S : 0.00 US ft	**+E / -W :** 0.00 US ft	**Az :**138.40°

Survey Name :Definitive Survey

Date : 24/Apr/2013	**Survey Tool :**	**Comment :**	**Company :**

Magnetic Model

Model Name: BGGM	**Date:** 24/Apr/2013	**Field Strength:** 52103.4 nT	**Declination:** 10.83°	**Dip:** 65.79°

Survey Tool Ranges

Name	Start MD (US ft)	End MD (US ft)	Source Survey
MWD	0.00	2517.00	SURFACE MWD
MWD	2517.00	8843.00	WFT MWD SURVEY

Well path created using minimum curvature

Survey Points (Relative to centre, TVD relative to Drill Floor)

MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	Latitude (°)	Longitude (°)	DLS (°/100 US ft)	CL (US ft)	VS (US ft)	Comment
0.00	0.00	0.00	0.00	0.00	0.00	39.972578	-109.423355	0.00	0.00	-0.00	
22.00	0.00	0.00	22.00	0.00	0.00	39.972578	-109.423355	0.00	22.00	-0.00	
26.00	0.00	0.00	26.00	0.00	0.00	39.972578	-109.423355	0.00	4.00	-0.00	
203.00	0.53	165.49	203.00	-0.79	0.21	39.972576	-109.423354	0.30	177.00	0.73	
291.00	0.79	154.60	290.99	-1.73	0.57	39.972573	-109.423353	0.33	88.00	1.67	
377.00	1.61	135.28	376.97	-3.13	1.67	39.972569	-109.423349	1.05	86.00	3.45	
467.00	2.64	130.95	466.91	-5.39	4.13	39.972563	-109.423340	1.16	90.00	6.77	
557.00	3.61	137.63	556.77	-8.84	7.60	39.972554	-109.423328	1.15	90.00	11.66	
647.00	5.19	136.19	646.51	-13.87	12.33	39.972540	-109.423311	1.76	90.00	18.56	
737.00	6.99	138.69	736.00	-20.92	18.76	39.972521	-109.423288	2.02	90.00	28.10	
827.00	7.30	138.95	825.30	-29.35	26.13	39.972497	-109.423262	0.35	90.00	39.30	
917.00	7.30	137.11	914.57	-37.85	33.78	39.972474	-109.423234	0.26	90.00	50.73	
1007.00	7.14	136.63	1003.85	-46.10	41.51	39.972451	-109.423207	0.19	90.00	62.04	
1097.00	7.23	135.37	1093.15	-54.20	49.33	39.972429	-109.423179	0.20	90.00	73.28	
1187.00	7.47	130.69	1182.41	-62.04	57.75	39.972408	-109.423149	0.72	90.00	84.74	
1277.00	7.47	126.12	1271.64	-69.31	66.91	39.972388	-109.423116	0.66	90.00	96.25	
1367.00	7.47	128.40	1360.88	-76.39	76.22	39.972368	-109.423083	0.33	90.00	107.73	
1457.00	7.56	134.82	1450.11	-84.20	85.00	39.972347	-109.423052	0.94	90.00	119.40	
1547.00	7.47	136.67	1539.34	-92.62	93.22	39.972324	-109.423022	0.29	90.00	131.15	
1637.00	6.95	135.96	1628.62	-100.79	101.02	39.972301	-109.422995	0.59	90.00	142.44	
1728.00	6.68	136.40	1718.98	-108.59	108.50	39.972280	-109.422968	0.30	91.00	153.23	
1818.00	7.39	137.02	1808.30	-116.61	116.05	39.972258	-109.422941	0.79	90.00	164.25	
1908.00	6.77	137.81	1897.62	-124.78	123.56	39.972235	-109.422914	0.70	90.00	175.34	
1998.00	6.60	138.42	1987.00	-132.58	130.55	39.972214	-109.422889	0.20	90.00	185.82	
2088.00	7.03	137.63	2076.37	-140.51	137.70	39.972192	-109.422864	0.49	90.00	196.50	
2178.00	6.42	139.57	2165.75	-148.41	144.67	39.972171	-109.422839	0.72	90.00	207.04	
2268.00	6.68	142.56	2255.16	-156.40	151.12	39.972149	-109.422816	0.48	90.00	217.29	
2358.00	6.78	142.10	2344.54	-164.75	157.57	39.972126	-109.422793	0.13	90.00	227.81	
2448.00	7.01	135.63	2433.89	-172.87	164.67	39.972103	-109.422767	0.90	90.00	238.60	
2517.00	7.12	140.62	2502.37	-179.18	170.33	39.972086	-109.422747	0.90	69.00	247.07	TIE ON TO SURFACE MWD SVY
2656.00	6.64	138.25	2640.37	-191.83	181.14	39.972051	-109.422709	0.40	139.00	263.72	FIRST WFT MWD SVY

Survey Points (Relative to centre, TVD relative to Drill Floor)

MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	Latitude (°)	Longitude (°)	DLS (°/100 US ft)	CI (US ft)	VS (US ft)	Comment
2750.00	5.76	136.38	2733.82	-199.30	188.02	39.972031	-109.422684	0.96	94.00	273.87	
2845.00	5.23	135.19	2828.38	-205.83	194.36	39.972013	-109.422661	0.57	95.00	282.96	
2939.00	4.81	134.82	2922.02	-211.64	200.17	39.971997	-109.422641	0.45	94.00	291.17	
3033.00	4.63	135.57	3015.70	-217.13	205.62	39.971982	-109.422621	0.20	94.00	298.89	
3128.00	2.69	136.94	3110.50	-221.50	209.83	39.971970	-109.422606	2.04	95.00	304.95	
3222.00	2.56	135.07	3204.40	-224.60	212.82	39.971961	-109.422596	0.17	94.00	309.25	
3317.00	1.13	185.45	3299.36	-227.03	214.23	39.971955	-109.422591	2.14	95.00	312.01	
3411.00	1.06	184.32	3393.34	-228.82	214.07	39.971950	-109.422591	0.08	94.00	313.24	
3506.00	1.44	176.82	3488.32	-230.89	214.07	39.971944	-109.422591	0.43	95.00	314.79	
3600.00	1.50	173.70	3582.29	-233.29	214.27	39.971937	-109.422590	0.11	94.00	316.72	
3694.00	1.69	168.45	3676.25	-235.87	214.69	39.971930	-109.422589	0.25	94.00	318.92	
3789.00	0.45	287.34	3771.24	-237.13	214.61	39.971927	-109.422589	2.05	95.00	319.81	
3883.00	1.00	215.32	3865.23	-237.69	213.79	39.971925	-109.422592	1.02	94.00	319.68	
3978.00	0.73	200.00	3960.22	-238.94	213.10	39.971922	-109.422595	0.37	95.00	320.16	
4072.00	0.75	195.95	4054.21	-240.09	212.72	39.971919	-109.422596	0.06	94.00	320.77	
4167.00	0.88	175.57	4149.20	-241.42	212.61	39.971915	-109.422596	0.33	95.00	321.69	
4261.00	0.91	166.90	4243.19	-242.86	212.84	39.971911	-109.422596	0.15	94.00	322.92	
4355.00	1.13	162.20	4337.18	-244.47	213.29	39.971907	-109.422594	0.25	94.00	324.42	
4450.00	1.06	163.20	4432.16	-246.21	213.83	39.971902	-109.422592	0.08	95.00	326.08	
4544.00	1.40	350.00	4526.15	-245.91	213.88	39.971903	-109.422592	2.61	94.00	325.89	
4639.00	1.06	339.32	4621.13	-243.94	213.37	39.971908	-109.422594	0.43	95.00	324.08	
4733.00	0.69	341.95	4715.12	-242.59	212.89	39.971912	-109.422595	0.40	94.00	322.75	
4828.00	0.50	333.57	4810.11	-241.68	212.52	39.971914	-109.422597	0.22	95.00	321.83	
4922.00	0.30	340.63	4904.11	-241.08	212.26	39.971916	-109.422598	0.22	94.00	321.20	
5016.00	0.31	333.19	4998.11	-240.62	212.06	39.971917	-109.422598	0.04	94.00	320.73	
5111.00	0.32	0.27	5093.11	-240.12	211.95	39.971919	-109.422599	0.16	95.00	320.28	
5205.00	0.19	9.70	5187.11	-239.71	211.98	39.971920	-109.422599	0.14	94.00	319.99	
5300.00	0.31	71.19	5282.11	-239.47	212.25	39.971921	-109.422598	0.29	95.00	319.99	
5394.00	0.13	84.20	5376.11	-239.38	212.59	39.971921	-109.422596	0.20	94.00	320.15	
5489.00	0.42	140.27	5471.10	-239.63	212.92	39.971920	-109.422595	0.38	95.00	320.56	
5583.00	0.56	163.07	5565.10	-240.34	213.28	39.971918	-109.422594	0.25	94.00	321.32	
5677.00	1.00	155.95	5659.09	-241.53	213.74	39.971915	-109.422592	0.48	94.00	322.52	
5772.00	0.93	311.92	5754.09	-241.77	213.51	39.971914	-109.422593	1.99	95.00	322.55	
5866.00	0.69	293.70	5848.08	-241.03	212.42	39.971916	-109.422597	0.37	94.00	321.28	
5961.00	0.38	243.82	5943.07	-240.94	211.62	39.971916	-109.422600	0.56	95.00	320.67	
6055.00	0.31	232.82	6037.07	-241.23	211.13	39.971916	-109.422602	0.10	94.00	320.57	
6150.00	0.44	189.19	6132.07	-241.75	210.87	39.971914	-109.422603	0.32	95.00	320.78	
6244.00	0.63	163.07	6226.07	-242.60	210.96	39.971912	-109.422602	0.32	94.00	321.48	
6339.00	1.56	5.57	6321.06	-241.81	211.24	39.971914	-109.422601	2.27	95.00	321.07	
6433.00	1.19	3.82	6415.03	-239.56	211.43	39.971920	-109.422601	0.40	94.00	319.52	
6528.00	0.63	20.32	6510.02	-238.09	211.68	39.971924	-109.422600	0.64	95.00	318.58	

Survey Points (Relative to centre, TVD relative to Drill Floor)

MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	Latitude (°)	Longitude (°)	DLS (°/100 US ft)	CI (US ft)	VS (US ft)	Comment
6622.00	0.56	56.07	6604.01	-237.35	212.24	39.971926	-109.422598	0.39	94.00	318.40	
6717.00	0.44	81.32	6699.01	-237.03	212.98	39.971927	-109.422595	0.26	95.00	318.66	
6811.00	0.50	70.82	6793.01	-236.84	213.73	39.971928	-109.422592	0.11	94.00	319.01	
6905.00	1.00	129.57	6887.00	-237.23	214.75	39.971927	-109.422589	0.91	94.00	319.98	
7000.00	0.94	136.20	6981.99	-238.32	215.93	39.971924	-109.422584	0.13	95.00	321.58	
7094.00	0.63	351.03	7075.98	-238.37	216.38	39.971924	-109.422583	1.60	94.00	321.91	
7189.00	1.88	345.94	7170.96	-236.34	215.92	39.971929	-109.422585	1.32	95.00	320.09	
7283.00	1.50	352.07	7264.92	-233.63	215.38	39.971937	-109.422586	0.45	94.00	317.70	
7377.00	1.31	18.70	7358.89	-231.39	215.55	39.971943	-109.422586	0.72	94.00	316.14	
7472.00	0.81	35.45	7453.87	-229.81	216.29	39.971947	-109.422583	0.61	95.00	315.45	
7566.00	0.40	63.17	7547.87	-229.13	216.97	39.971949	-109.422581	0.52	94.00	315.39	
7661.00	0.25	105.82	7642.87	-229.03	217.46	39.971949	-109.422579	0.29	95.00	315.65	
7850.00	0.63	144.20	7831.86	-229.99	218.47	39.971947	-109.422575	0.24	189.00	317.03	
7944.00	0.88	151.94	7925.85	-231.04	219.11	39.971944	-109.422573	0.29	94.00	318.25	
8089.00	0.94	164.95	8070.83	-233.17	219.94	39.971938	-109.422570	0.15	145.00	320.39	
8133.00	1.13	177.57	8114.83	-233.96	220.05	39.971936	-109.422570	0.67	44.00	321.05	
8228.00	1.50	193.69	8209.80	-236.10	219.80	39.971930	-109.422571	0.55	95.00	322.49	
8322.00	1.80	199.12	8303.76	-238.69	219.02	39.971923	-109.422573	0.36	94.00	323.91	
8417.00	1.81	184.57	8398.72	-241.60	218.41	39.971915	-109.422576	0.48	95.00	325.68	
8511.00	1.94	194.44	8492.67	-244.62	217.90	39.971906	-109.422577	0.37	94.00	327.59	
8793.00	2.00	168.82	8774.51	-254.07	217.66	39.971880	-109.422578	0.31	282.00	334.50	LAST WFT MWD SVY
8843.00	2.00	168.82	8824.47	-255.78	218.00	39.971876	-109.422577	0.00	50.00	336.01	PROJECTION TO TD